ICF-CD543RM

SERVICE MANUAL

Ver. 1.2 2005.07

US Model
Canadian Model
AEP Model

Model Name Using Similar Mechanism	NEW
CD Mechanism Type	FLM-CD543RM-149
Optical Block Name	KSM-213RCP
Optical Pick-up Name	KSS-213R

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US model only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION
With 3.2–ohm loads, both channels driven from 100 – 10 000 Hz; rated 1.4 W per channel-minimum RMS power, with no more than 10 % total harmonic distortion in AC operation.

CD player section

System: Compact disc digital audio system
Laser diode properties: Material: GaAlAs
Wavelength: 780 nm
Emission duration: Continuous
Laser output: Less than 44.6 µW
(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)
Frequency response: 20 – 20 000 Hz $^{+1}_{-1.5}$ dB
Wow and flutter: Below measurable limit

Radio section

Frequency range:
US model
TV: 2 – 13 ch
WEATHER: 1 – 7 ch
FM: 87.5 – 108 MHz
AM: 530 – 1 710 kHz

Canadian model

Band	Frequency range	Channel step
FM	87.5-108 MHz	0.1 MHz
AM	530-1 710 kHz	10 kHz

AEP model

Band	Frequency range	Channel step
FM	87.5-108 MHz	0.05 MHz
AM	531-1 602 kHz	9 kHz
FM	87.5-108 MHz	0.1 MHz
AM	530-1 610 kHz	10 kHz

General

Time display:
US, Canadian models: 12-hour system
AEP model: 24-hour system
Speaker:
77 mm (3 1/8 inches) dia., 3.2
Power outputs:
2 W + 2 W (at 10% harmonic distortion)
Power requirements:
US, Canadian models: 120 V AC, 60 Hz
AEP model: 220-230 V AC, 50 Hz
Dimensions:
Approx. 350 × 88 × 310 mm (w / h / d)
(Approx. 13 7/8 × 3 1/2 × 12 1/4 inches) incl. projecting parts and controls
Mass:
Approx. 2.9 kg (6 lb. 6 oz.)
Supplied accessories:
Mounting screws (3), Template (1), Spacers (3), Cord clamp (1), Remote commander (RM-CD543A) (1)

Design and specifications are subject to change without notice.

US Model
TV/WEATHER/FM/AM CD KITCHEN CLOCK RADIO
Canadian, AEP Models
FM/AM CD KITCHEN CLOCK RADIO

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Personal Audio Group
Published by Sony Engineering Corporation

SONY®

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

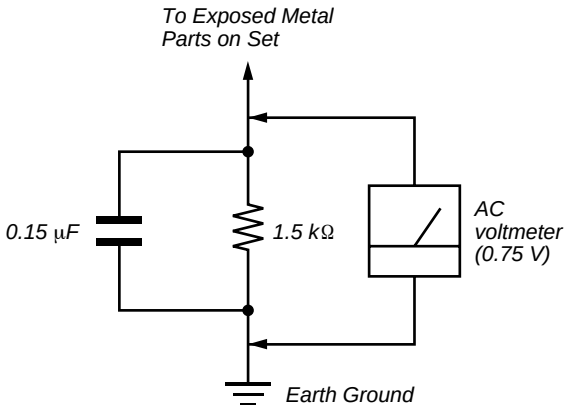

Fig. A. Using an AC voltmeter to check AC leakage.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the top exterior.

About CD-Rs/CD-RWs

This unit is compatible with CD-Rs/CD-RWs but playback capability may vary depending on the quality of the disc, the recording device and application software.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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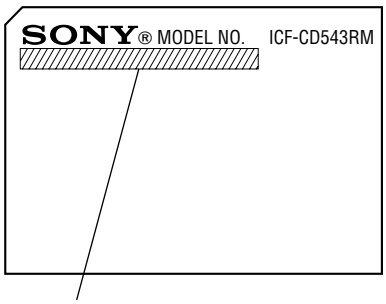
NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

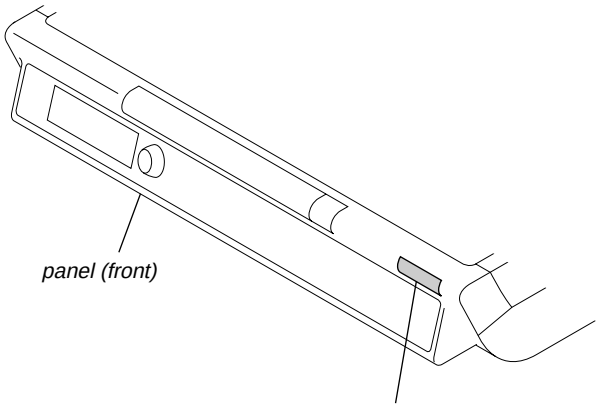
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

MODEL IDENTIFICATION – Top View –



US, Canadian models: AC: 120 V ~ 60 Hz 15 W
AEP model: AC: 220 – 230 V ~ 50 Hz 15 W

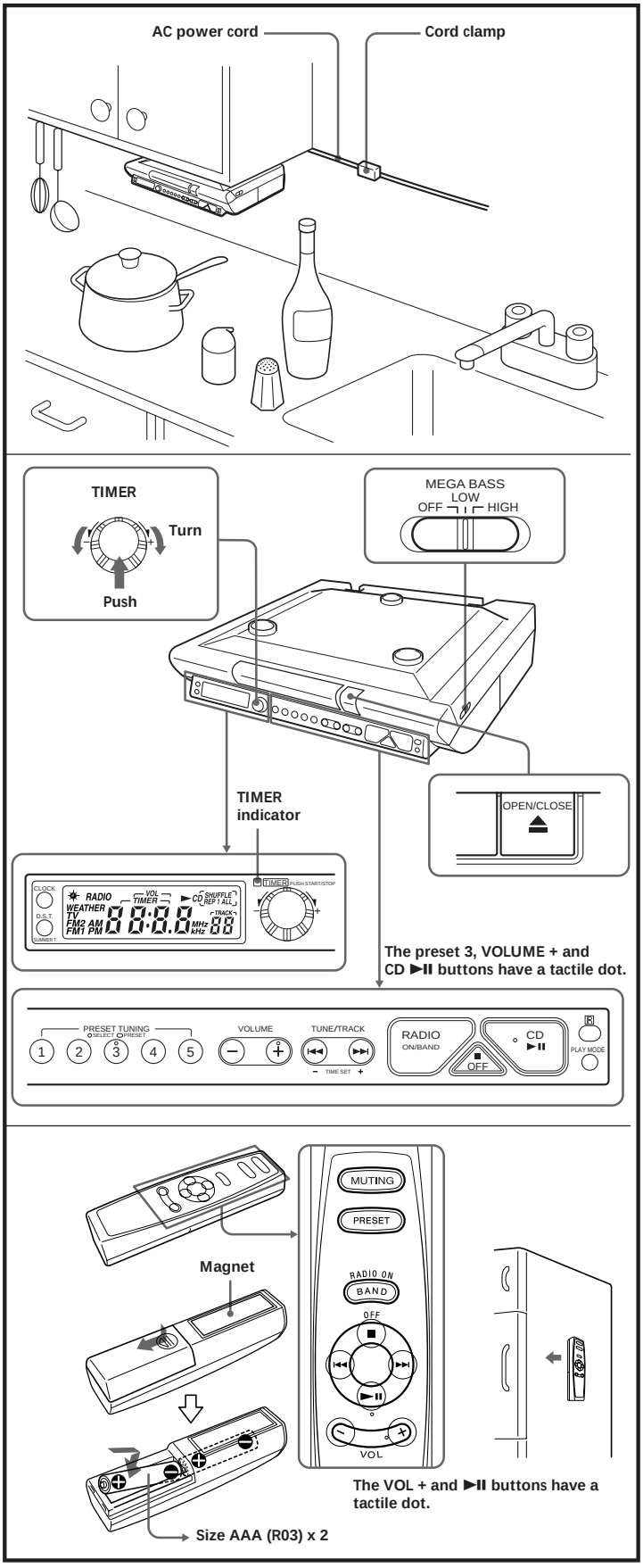
There are three types of US model.
Please look at the mark of set shown below.



MEGA BASS : Original Type, Silver Type
LIV : Liv Type

SECTION 2
GENERAL

This section is extracted from instruction manual.



Features

- Built-in CD player with CD-R/RW playback function
- Dynamic Bass Reflex Sound with the MEGA BASS sound system
- TV/WEATHER/FM/AM 4 band PLL (phase locked loop) synthesized clock radio (US model)
- FM/AM 2 band PLL (phase locked loop) (Canadian, AEP models)
- Easy Preset Digital Tuning with 25 station presets
- Easy to set dial cooking timer
- Remote Commander Included
- D.S.T. (Daylight Saving Time) – Summer time calculation

Setting the Clock

(US model)

1 Plug in the CD kitchen clock radio.
The display will flash "AM 12:00".

2 Press **CLOCK** for a few seconds.
You will hear a beep and the hour will start to flash in the display.

3 Press **TUNE/TRACK•TIME SET +** or **–** until the correct hour appears in the display.

4 Press **CLOCK** once.
The minute will flash.

5 Repeat steps **3** and **4** to set the minute.
After setting the minute, press **CLOCK** to start the counting of the seconds, and you will hear two short beeps.

To set the current time rapidly, hold down **TUNE/TRACK•TIME SET +** or **–**.
The clock system varies depending on the model you own.
12-hour system: "AM 12:00" = midnight

In step **5**, when you press **CLOCK** after the minute setting to activate the clock, the seconds start counting from zero.

To change the display to the daylight saving time (summer time) indication

Press **D.S.T.•SUMMER T.**.
"☼" is displayed and the time indication changes to summer time.
To deactivate the summer time function, press **D.S.T.•SUMMER T.** again.

(Canadian, AEP model)

1 Plug in the CD kitchen clock radio.
The display will flash "AM 12:00" or "0:00".

2 Press **CLOCK** for a few seconds.
You will hear a beep and the hour will start to flash in the display.

3 Press **TUNE/TRACK•TIME SET +** or **–** until the correct hour appears in the display.

4 Press **CLOCK** once.
The minute will flash.

5 Repeat steps **3** and **4** to set the minute.
After setting the minute, press **CLOCK** to start the counting of the seconds, and you will hear two short beeps.

To set the current time rapidly, hold down **TUNE/TRACK•TIME SET +** or **–**.
The clock system varies depending on the model you own.
12-hour system: "AM 12:00" = midnight
24-hour system: "0:00" = midnight

In step **5**, when you press **CLOCK** after the minute setting to activate the clock, the seconds start counting from zero.

To change the display to the daylight saving time (summer time) indication

Press **D.S.T.•SUMMER T.**.
"☼" is displayed and the time indication changes to summer time.
To deactivate the summer time function, press **D.S.T.•SUMMER T.** again.

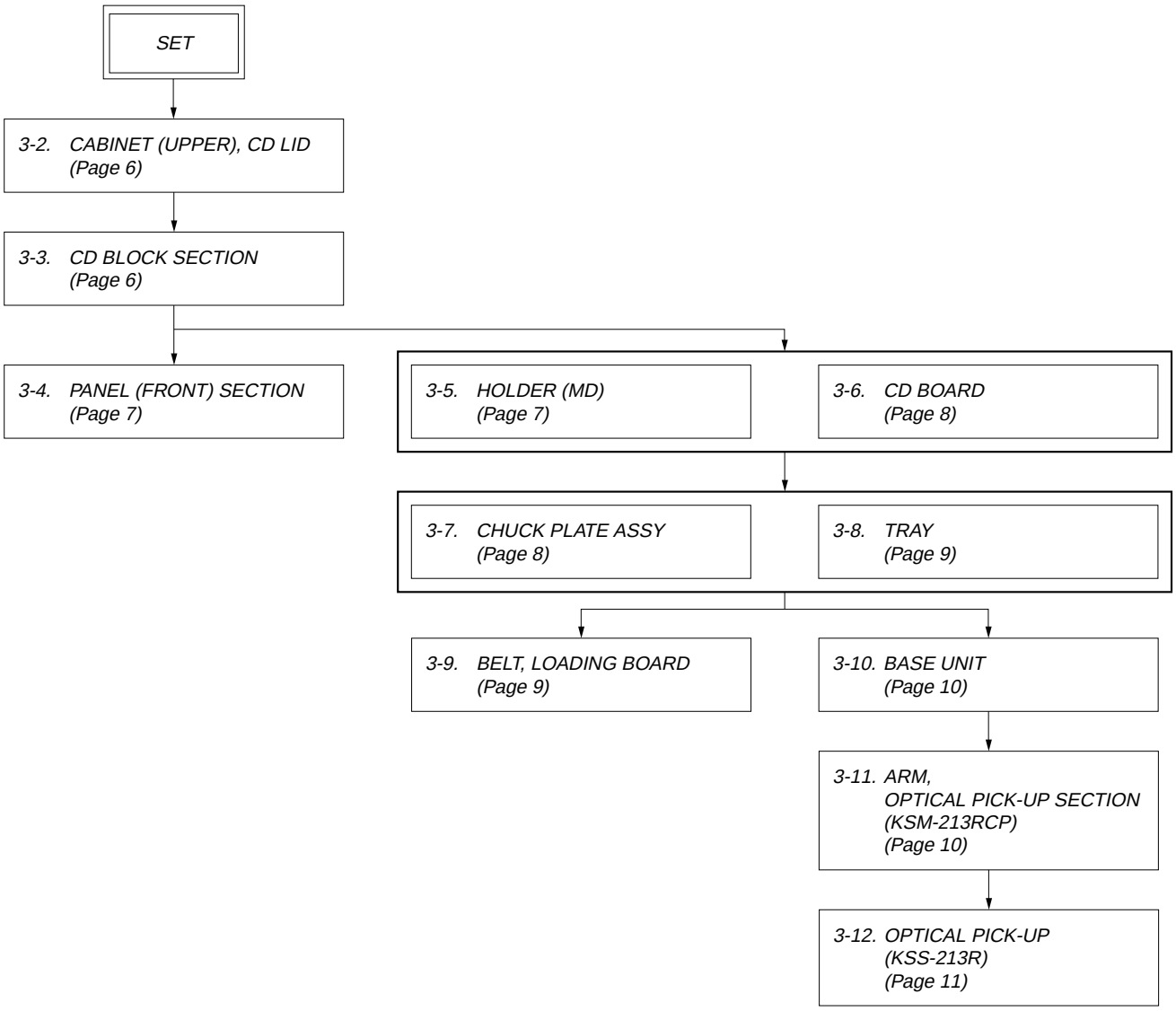
SECTION 3
DISASSEMBLY

• This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

Note 1: *The process described in* ▣ *can be performed in any order.*

Note 2: *Without completing the process described in* ▣ *, the next process can not be performed.*


SET
3-2. CABINET (UPPER), CD LID (Page 6)
3-3. CD BLOCK SECTION (Page 6)
3-4. PANEL (FRONT) SECTION (Page 7)
3-5. HOLDER (MD) (Page 7)
3-6. CD BOARD (Page 8)
3-7. CHUCK PLATE ASSY (Page 8)
3-8. TRAY (Page 9)
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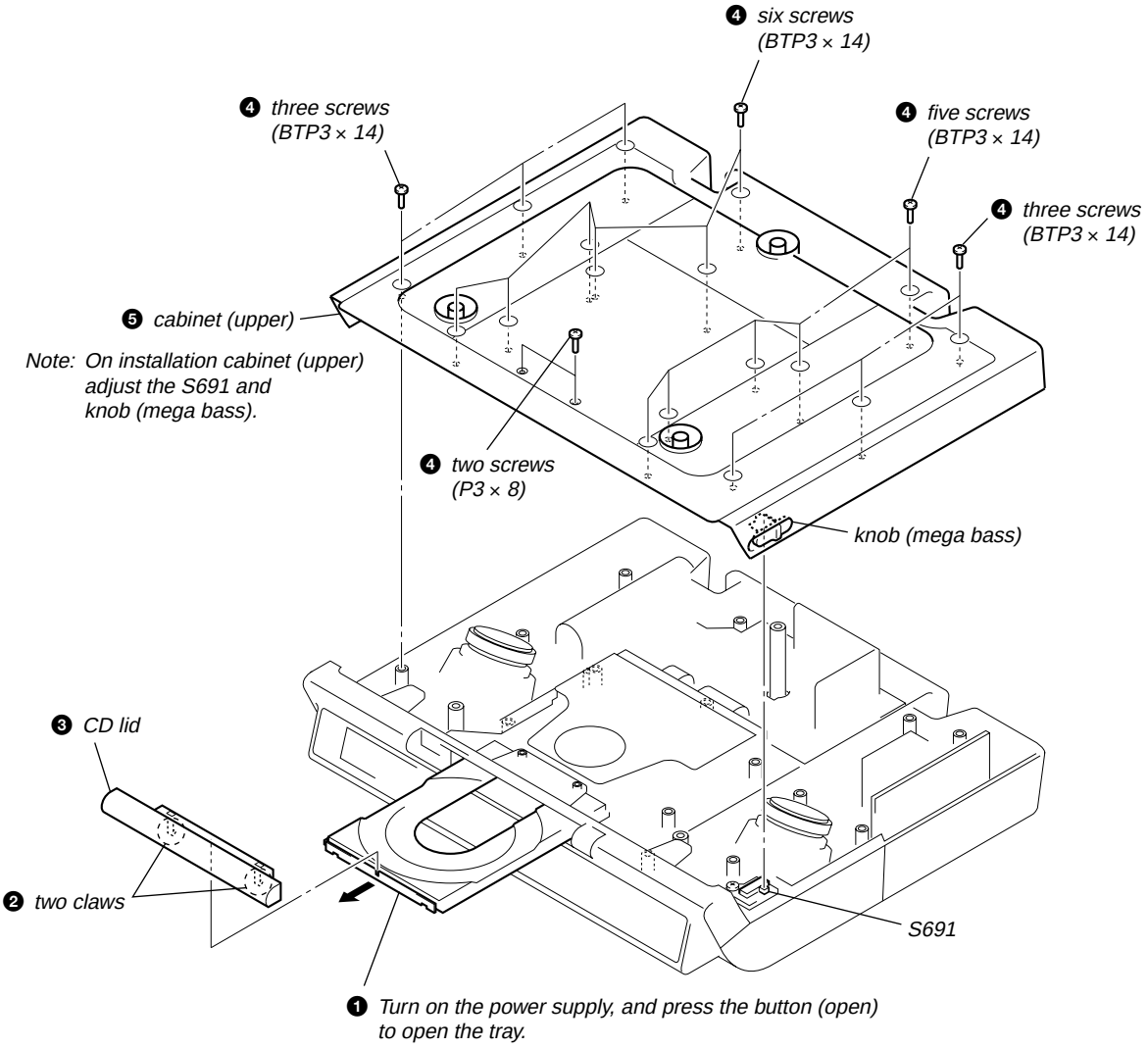
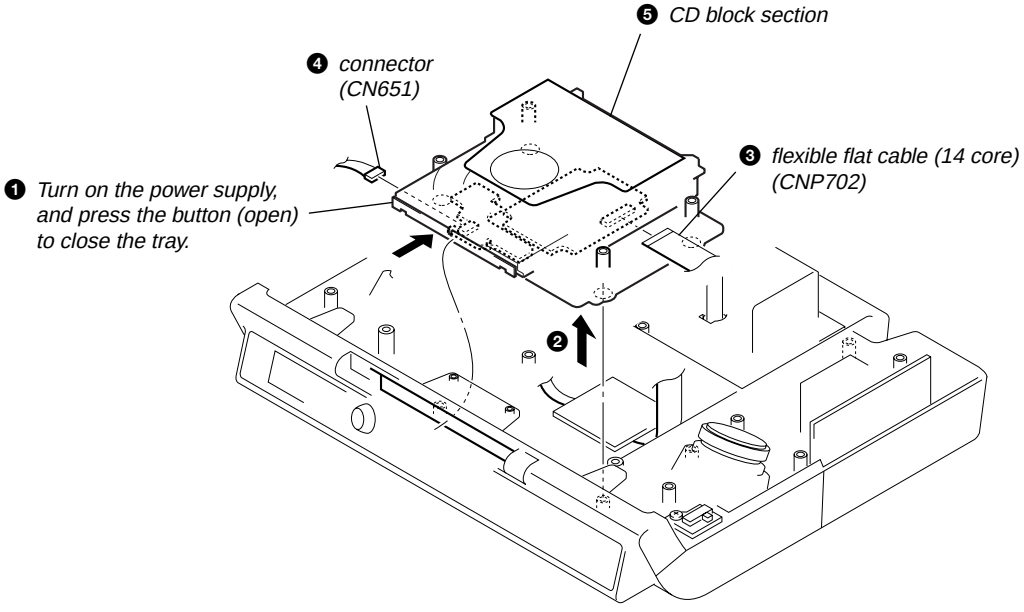
3-10. BASE UNIT (Page 10)
3-11. ARM, OPTICAL PICK-UP SECTION (KSM-213RCP) (Page 10)
3-12. OPTICAL PICK-UP (KSS-213R) (Page 11)

Note: Follow the disassembly procedure in the numerical order given.

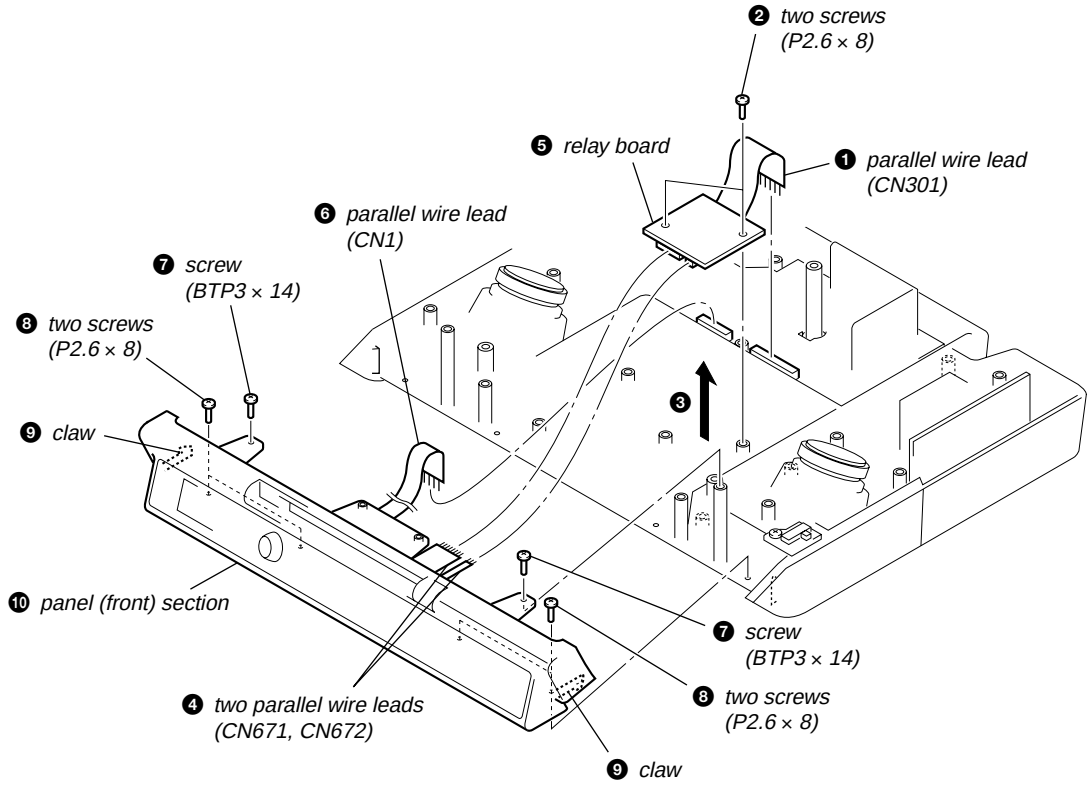
3-2. CABINET (UPPER), CD LID


❹ six screws (BTP3 × 14)
❹ three screws (BTP3 × 14)
❹ five screws (BTP3 × 14)
❹ three screws (BTP3 × 14)
❺ cabinet (upper)
Note: On installation cabinet (upper) adjust the S691 and knob (mega bass).
❹ two screws (P3 × 8)
knob (mega bass)
❸ CD lid
❷ two claws
S691
❶ Turn on the power supply, and press the button (open) to open the tray.

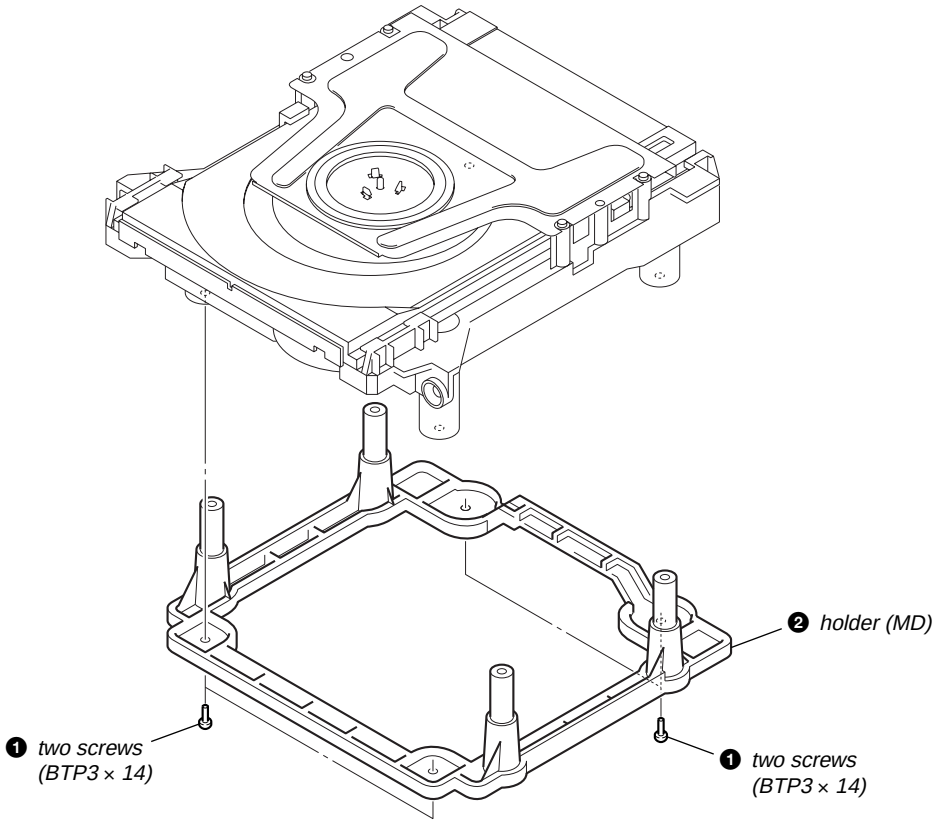
3-3. CD BLOCK SECTION


❺ CD block section
❹ connector (CN651)
❸ flexible flat cable (14 core) (CNP702)
❶ Turn on the power supply, and press the button (open) to close the tray.
❷

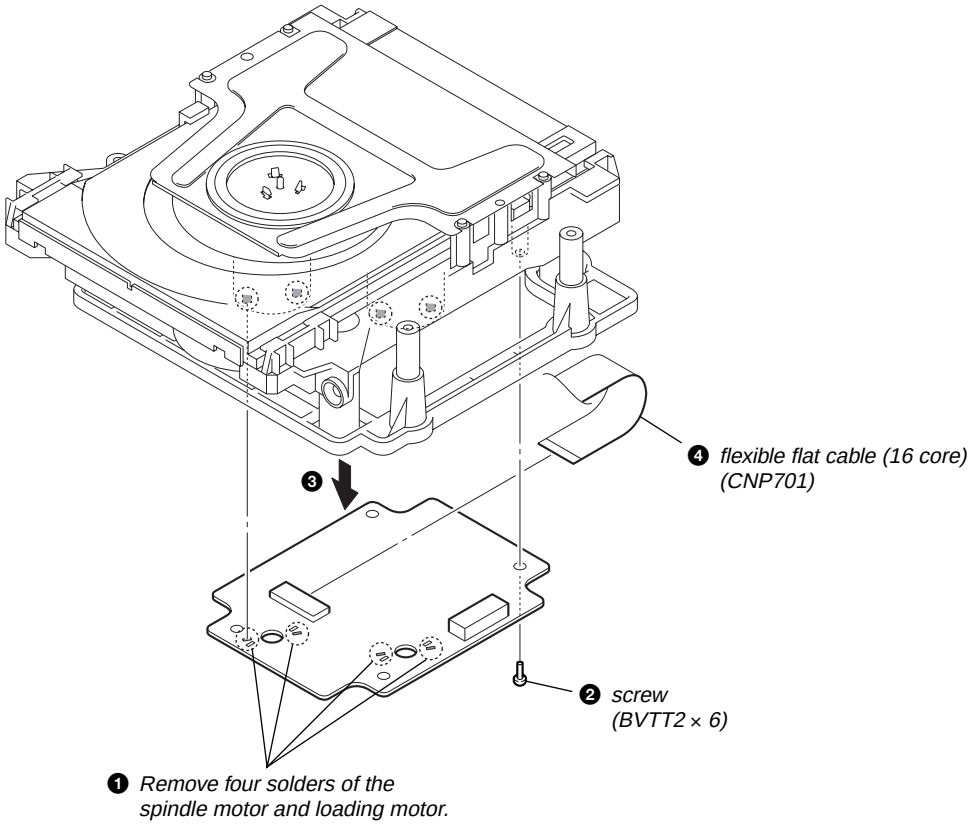
3-4. PANEL (FRONT) SECTION



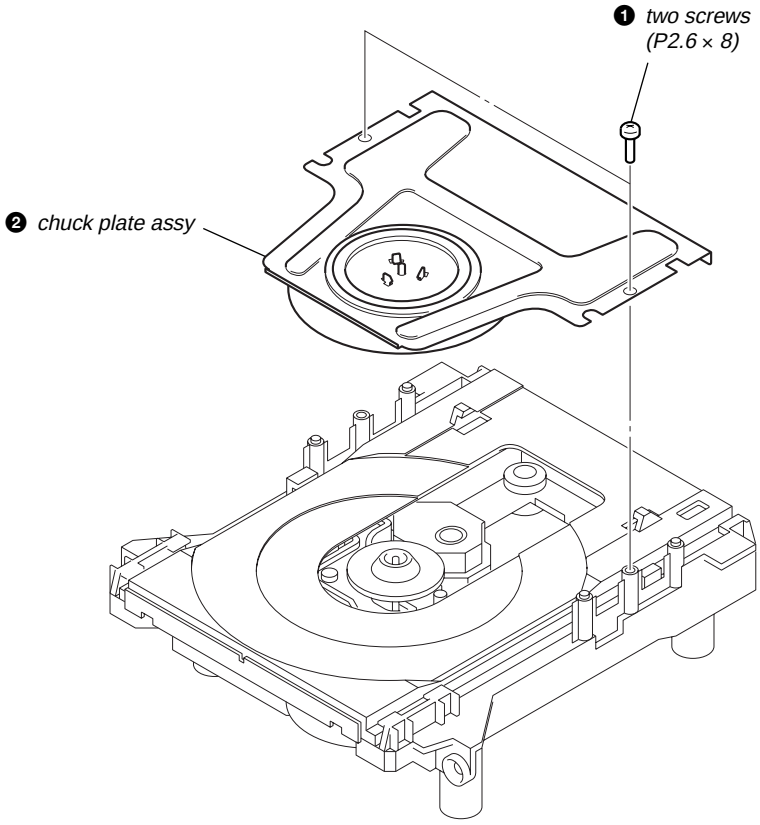
3-5. HOLDER (MD)



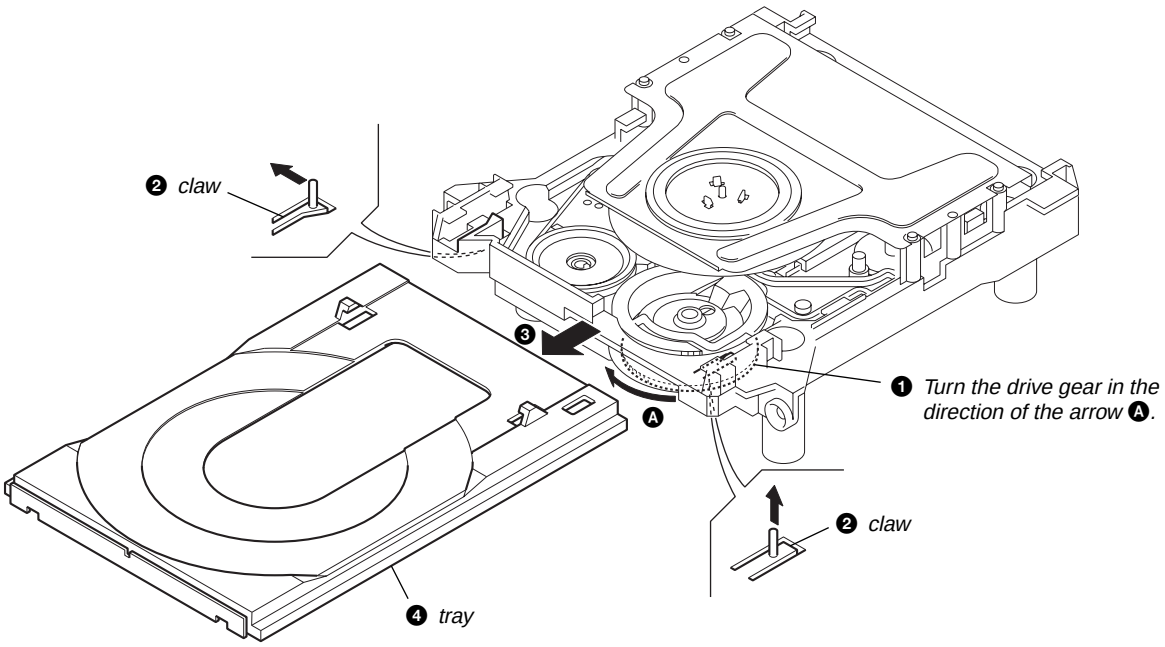
3-6. CD BOARD



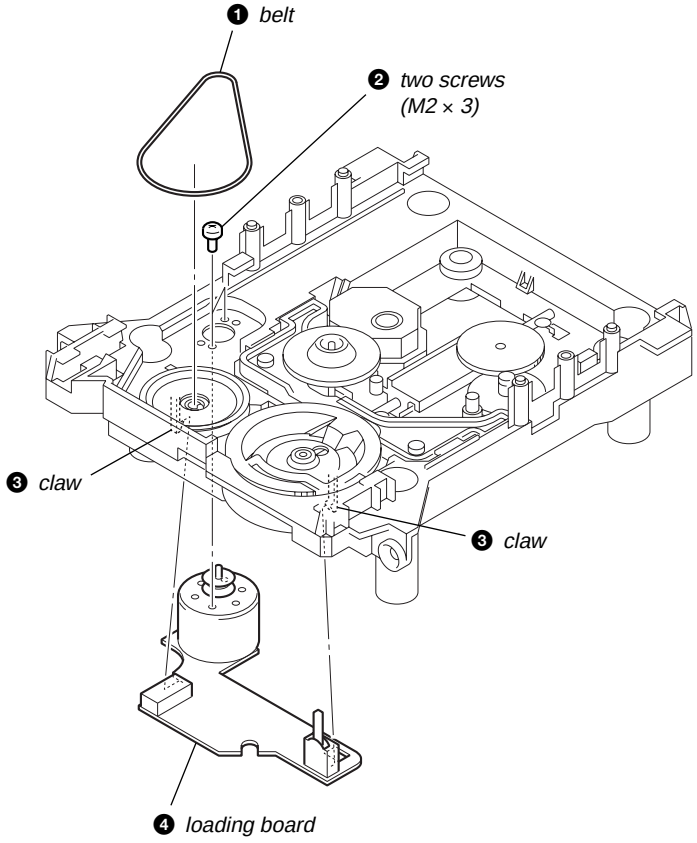
3-7. CHUCK PLATE ASSY



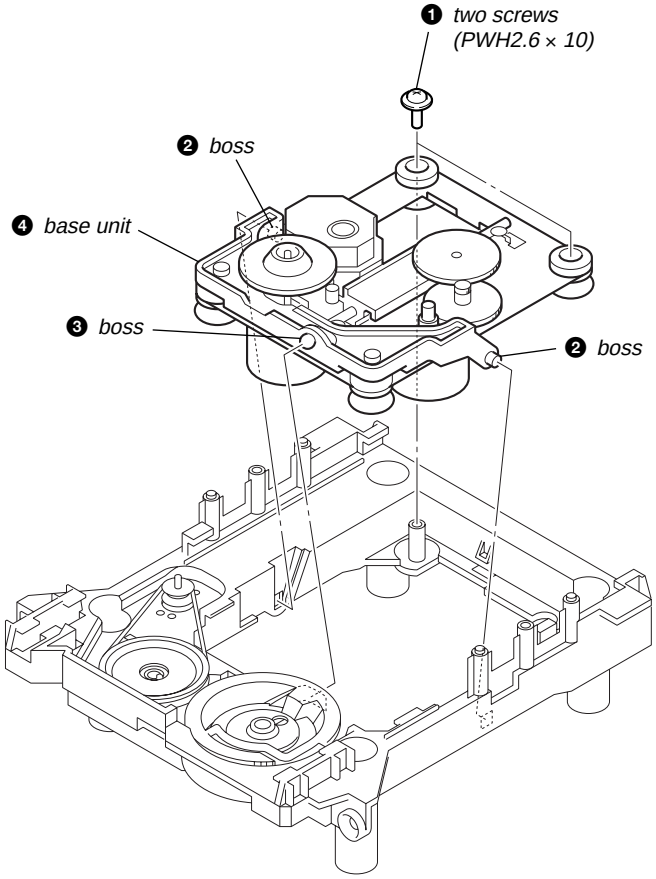
3-8. TRAY



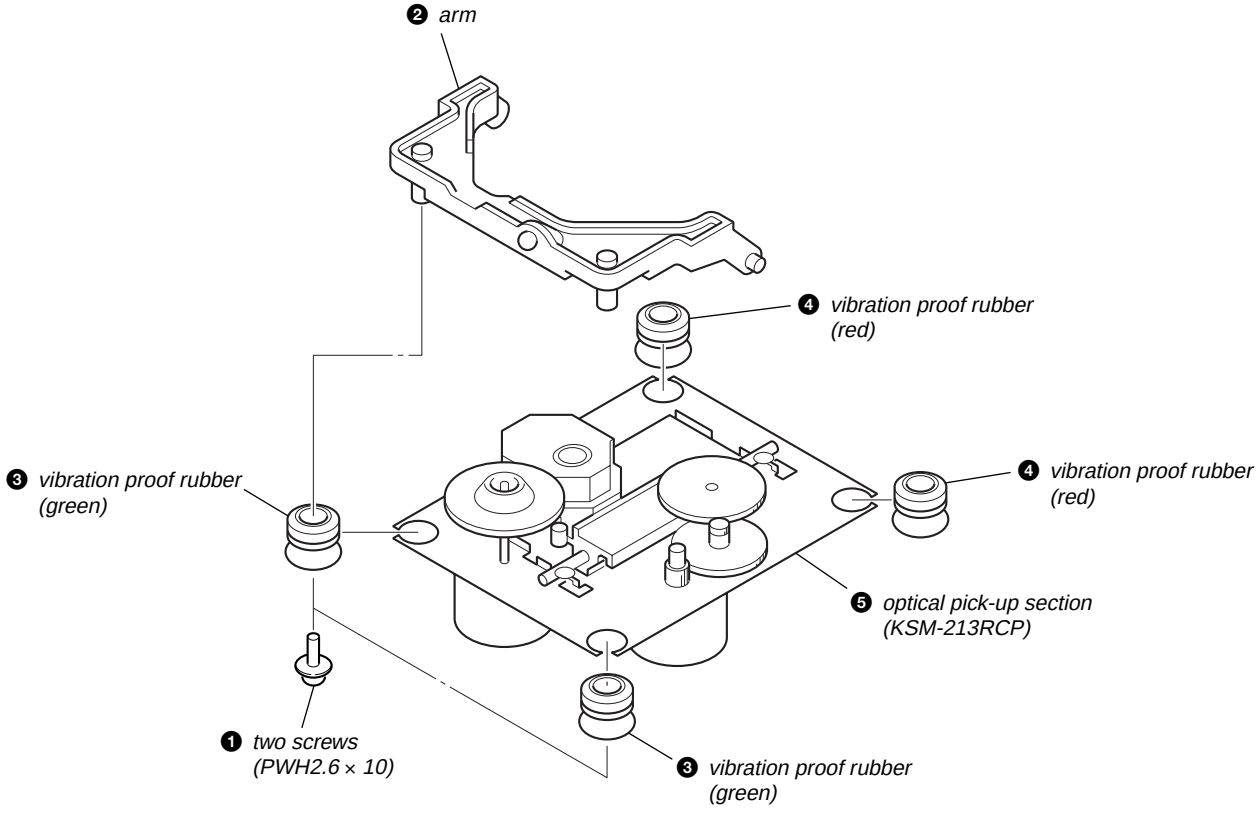
3-9. BELT, LOADING BOARD



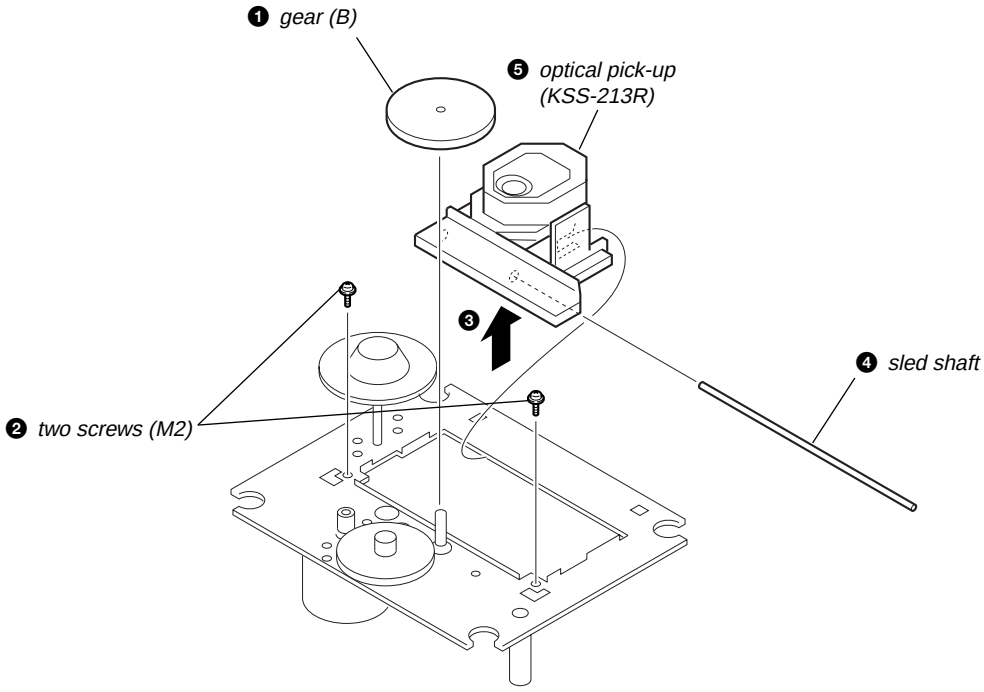
3-10. BASE UNIT



3-11. ARM, OPTICAL PICK-UP SECTION (KSM-213RCP)



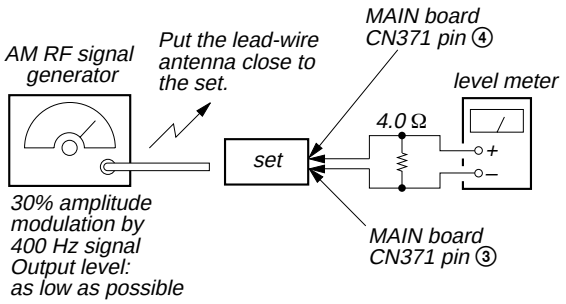
3-12. OPTICAL PICK-UP (KSS-213R)

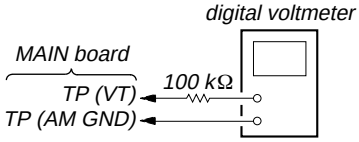


SECTION 4
ELECTRICAL ADJUSTMENTS

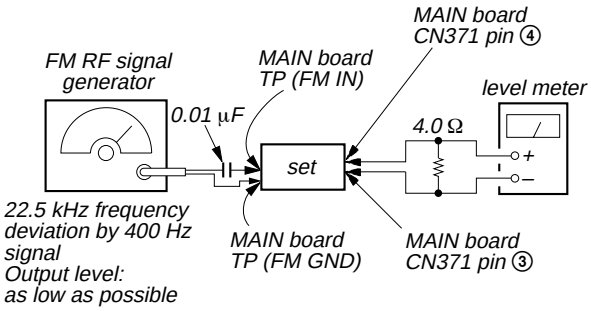
TUNER SECTION | 0 dB=1 μV

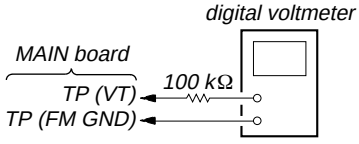
[AM]
Setting:
Function : RADIO
RADIO ON/BAND button : AM





[FM/TV/WEATHER]
Setting:
Function : RADIO
RADIO ON/BAND button: FM or TV or WEATHER





- Repeat the procedures in each adjustment several times, and the tracking adjustments should be finally done by the trimmer capacitors.
- Remove FM antenna in FM adjustment.

( ): AEP model

AM IF ADJUSTMENT	
Adjust for a maximum reading on level meter	
RV1	1,000 kHz (999 kHz)

( ): AEP model

AM VCO VOLTAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L2	530 kHz	2.3 ± 0.05 V
Confirmation	1,710 kHz (1,602 kHz)	9.3 ± 2.0 V (8.6 ± 1.5 V)

( ): AEP model

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L1	580 kHz (621 kHz)
CT1	1,490 kHz (1,395 kHz)

FM/TV (2 – 6 CH) VCO VOLTAGE CONFIRMATION (US model)		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
Confirmation	108 MHz	14.2 ± 2.0 V
Confirmation	TV 2 ch	2.2 ± 0.4 V

FM/TV (2 – 6 CH) TRACKING ADJUSTMENT (US model)	
Adjust for a maximum reading on level meter	
L3	TV 2 ch
CT2	108 MHz

TV (7 – 13 CH)/WEATHER (1 – 7 CH) VCO VOLTAGE CONFIRMATION (US model)		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
Confirmation	TV 13 ch	9.2 ± 1.5 V
Confirmation	WEATHER 2 ch	4.2 ± 0.5 V

TV (7 – 13 CH)/WEATHER (1 – 7 CH) TRACKING ADJUSTMENT (US model)	
Adjust for a maximum reading on level meter	
L4	WEATHER 2 ch
CT3	TV 13 ch

FM VCO VOLTAGE CONFIRMATION (Canadian, AEP models)		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
Confirmation	87.5 MHz	2.5 ± 0.4 V
Confirmation	108.0 MHz	9.0 ± 2.0 V

FM TRACKING ADJUSTMENT (Canadian, AEP models)	
Adjust for a maximum reading on level meter	
L3	87.5 MHz
CT2	108 MHz

Adjustment Location: MAIN board (See page 14)

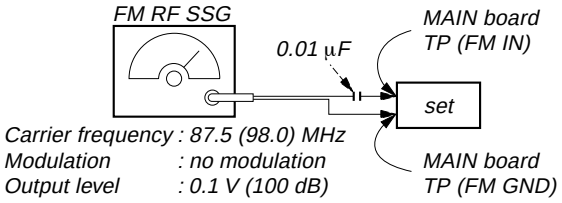
FM STEREO ADJUSTMENT

Setting:

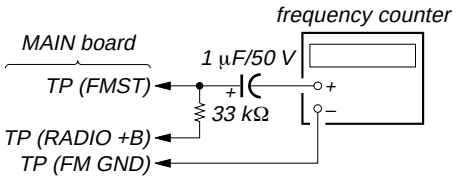
Function: RADIO

RADIO ON/BAND button: FM

( ): Canadian, AEP models



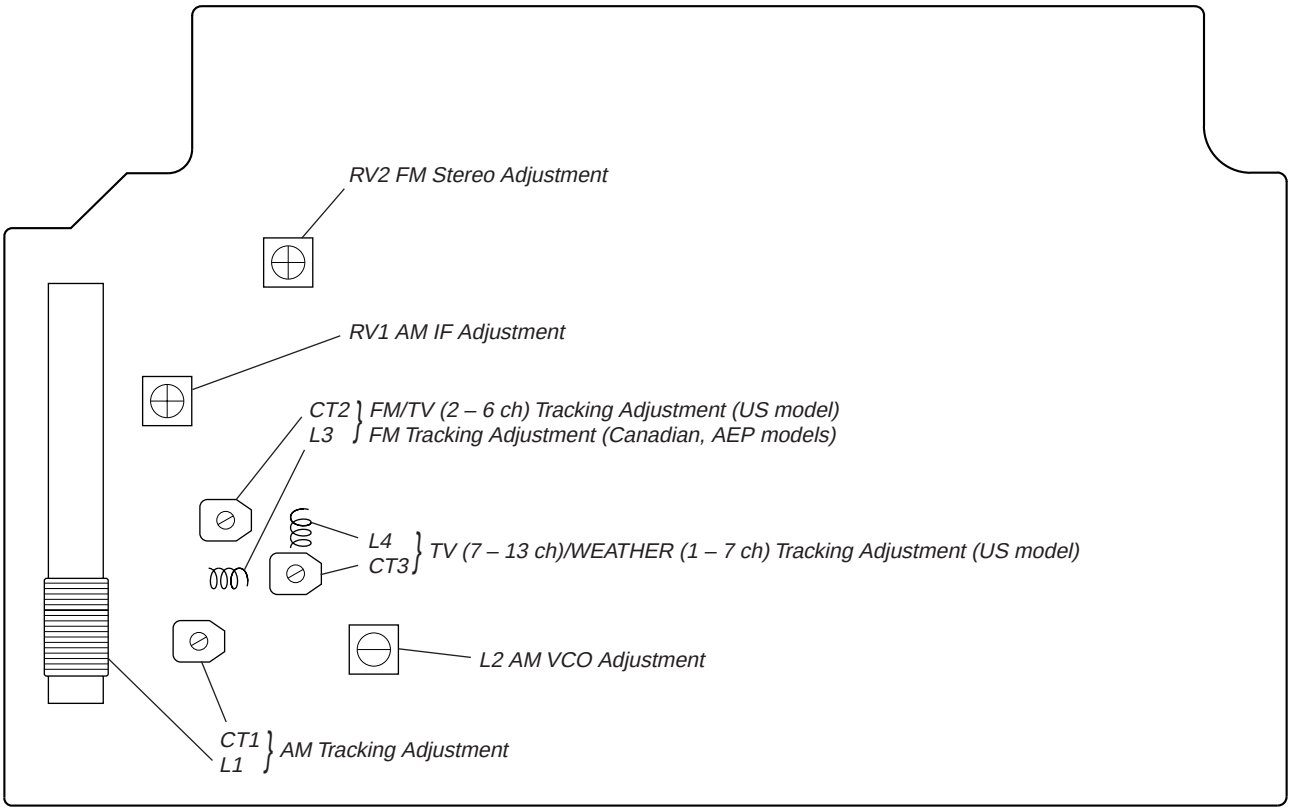
1. Connect the frequency counter to TP (FMST) and TP (RADIO +B) as shown the figure below.
2. Tune the set to 87.5 (98.0) MHz.
3. Adjust RV2 for 75.95 to 76.05 kHz reading on the frequency counter.



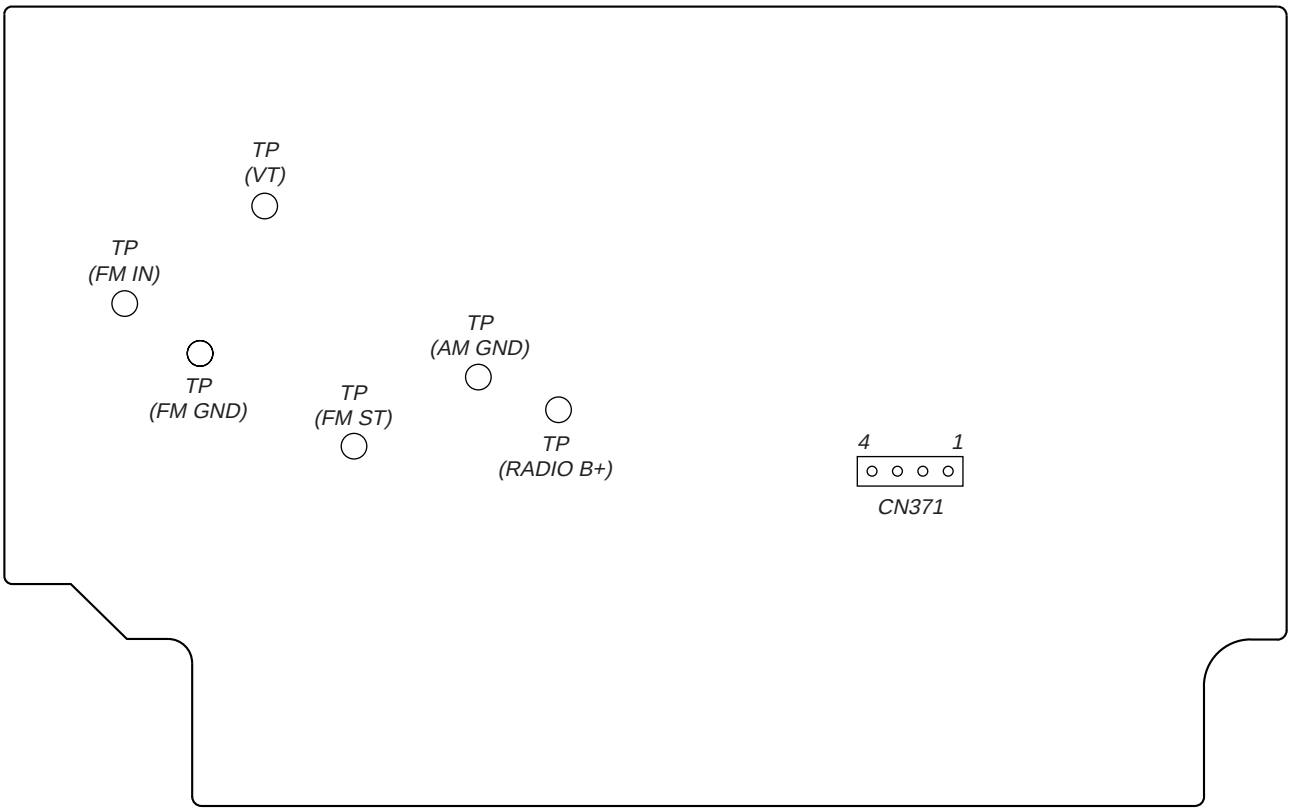
Adjustment Location: MAIN board (See page 14)

Adjustment Location:

– MAIN BOARD (Component Side) –



– MAIN BOARD (Conductor Side) –



CD SECTION

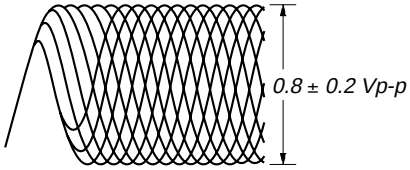
CD section adjustments are done automatically in this set.
In case of operation check, confirm that focus bias.

FOCUS BIAS CHECK

1. Connect the oscilloscope to TP (RF) and TP (GND) on the CD board.
2. Insert the disc (YEDS-18). (Part No. : 3-702-101-01)
3. Press the ▶II (CD) button.
4. Confirm that the oscilloscope waveform is as shown in the figure below. (eye pattern)
   A good eye pattern means that the diamond shape (◊) in the center of the waveform can be clearly distinguished.

• RF signal reference waveform (eye pattern)

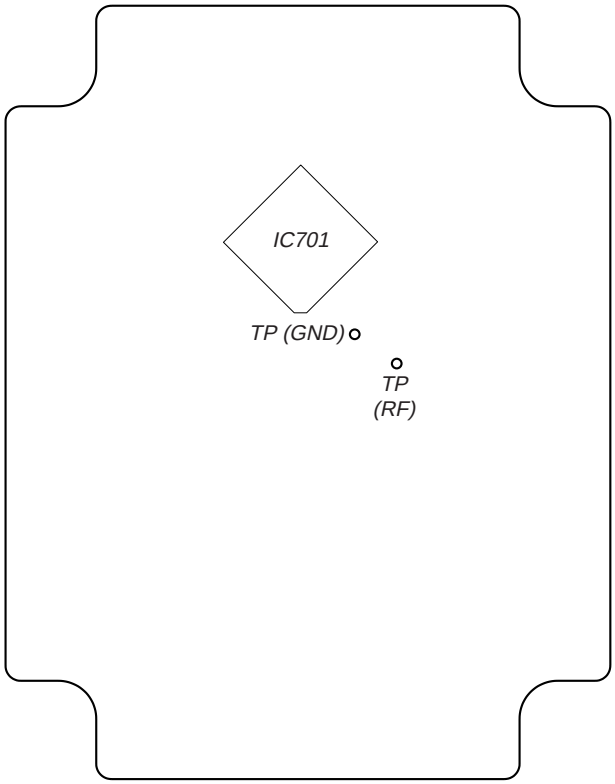
VOLT/DIV: 0.2 V (with the 10: 1 probe in use.)
TIME/DIV: 500 ns



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

Adjustment Location:

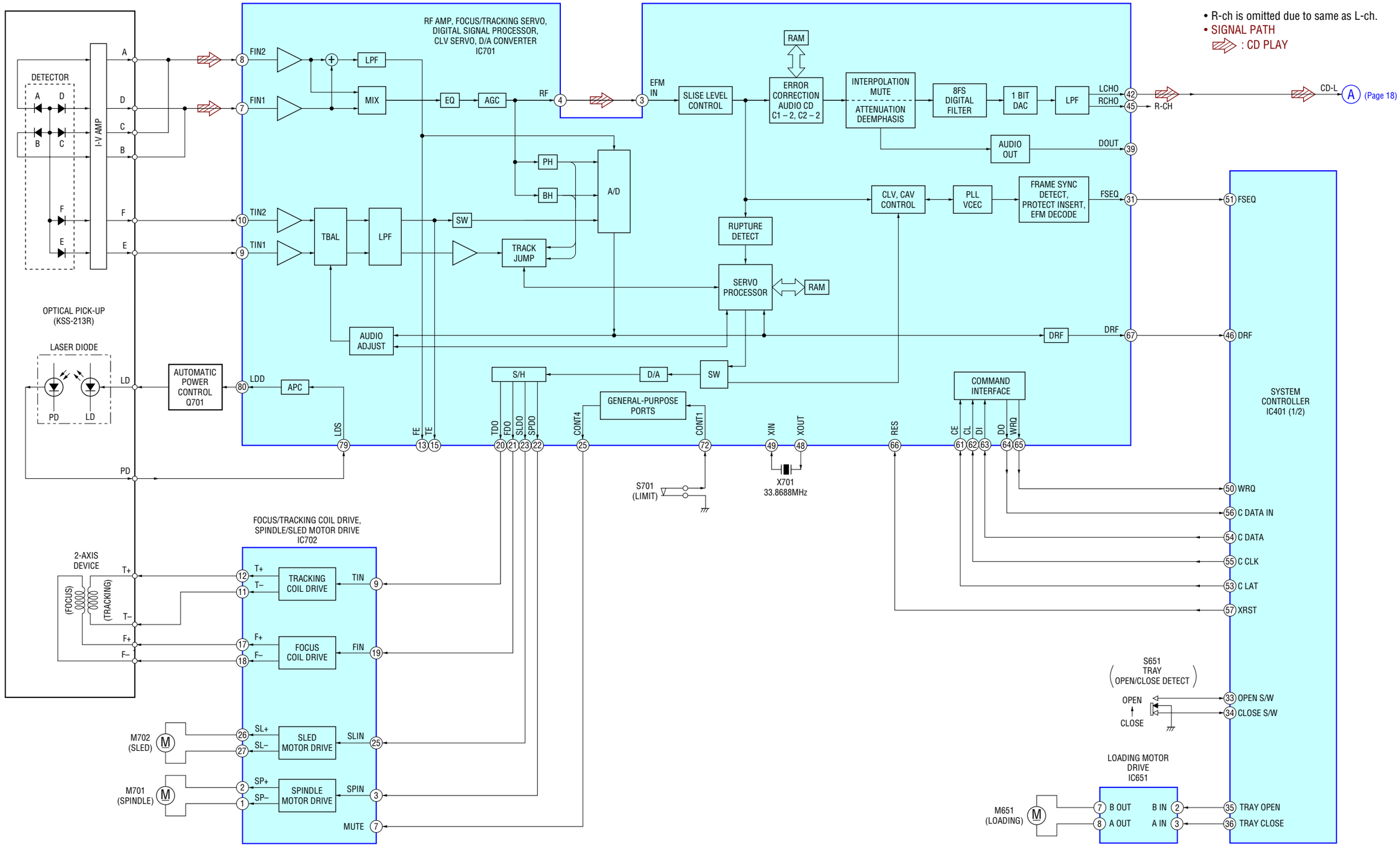
– CD BOARD (Conductor Side) –



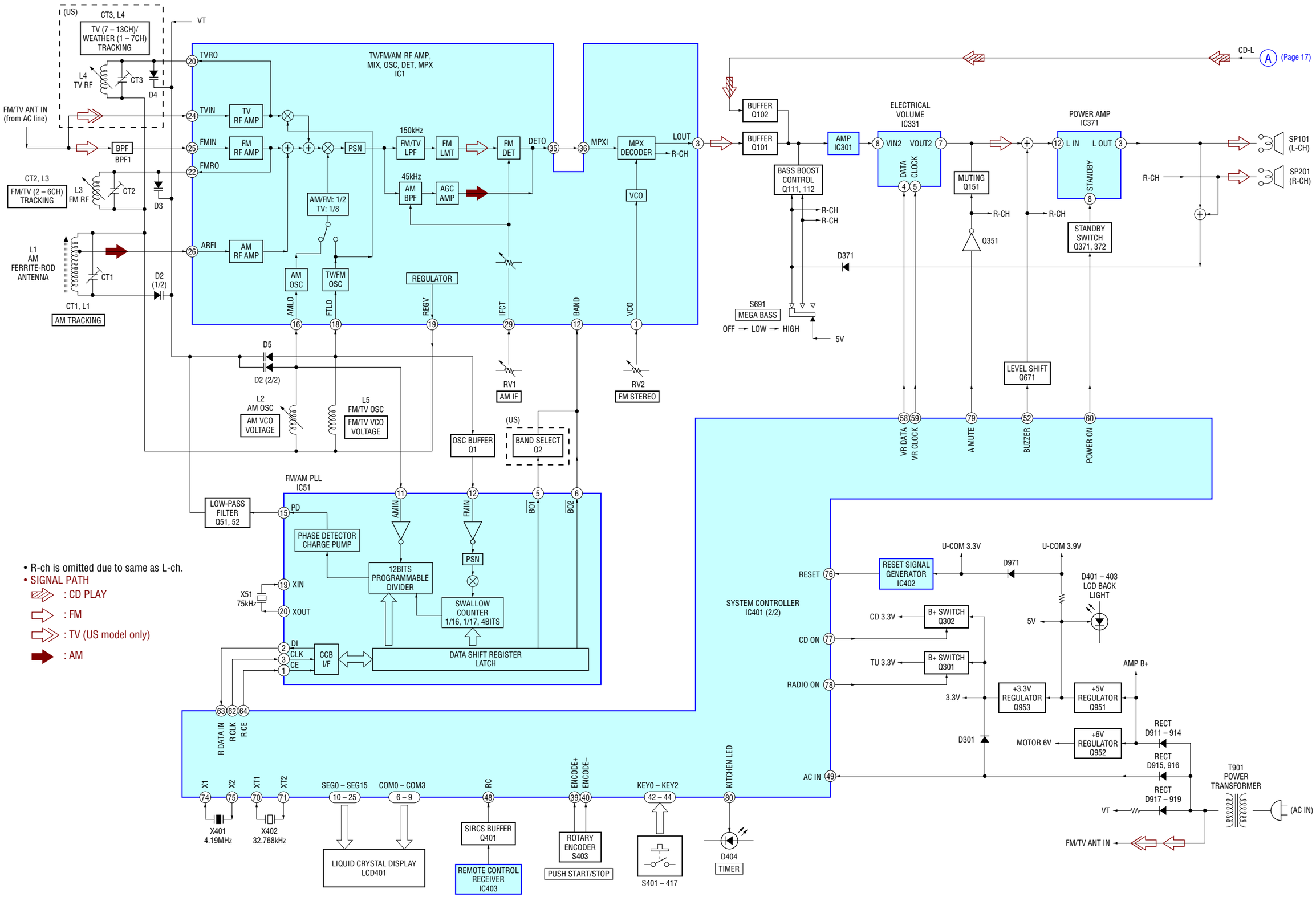
MEMO

SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM – CD Section –



5-2. BLOCK DIAGRAM – MAIN Section –



- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  - : CD PLAY
  - : FM
  - : TV (US model only)
  - : AM

5-3. NOTE FOR PRINTED WIRING BOARD AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Boards:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ⊡← : indicates side identified with part number.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

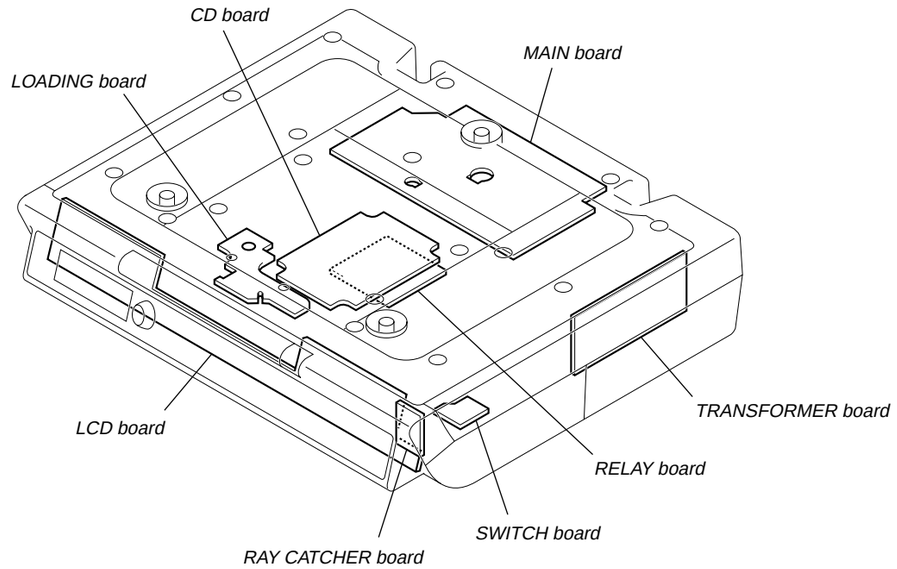
Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : fusible resistor.
- : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- : B+ Line.
- : B– Line.
- : adjustment for repair.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - : FM/TV (2 – 6 ch)
  - : TV (7 – 13 ch)/WEATHER (1 – 7 ch)
  - : AM
  - : CD
- Abbreviation
  CND : Canadian model

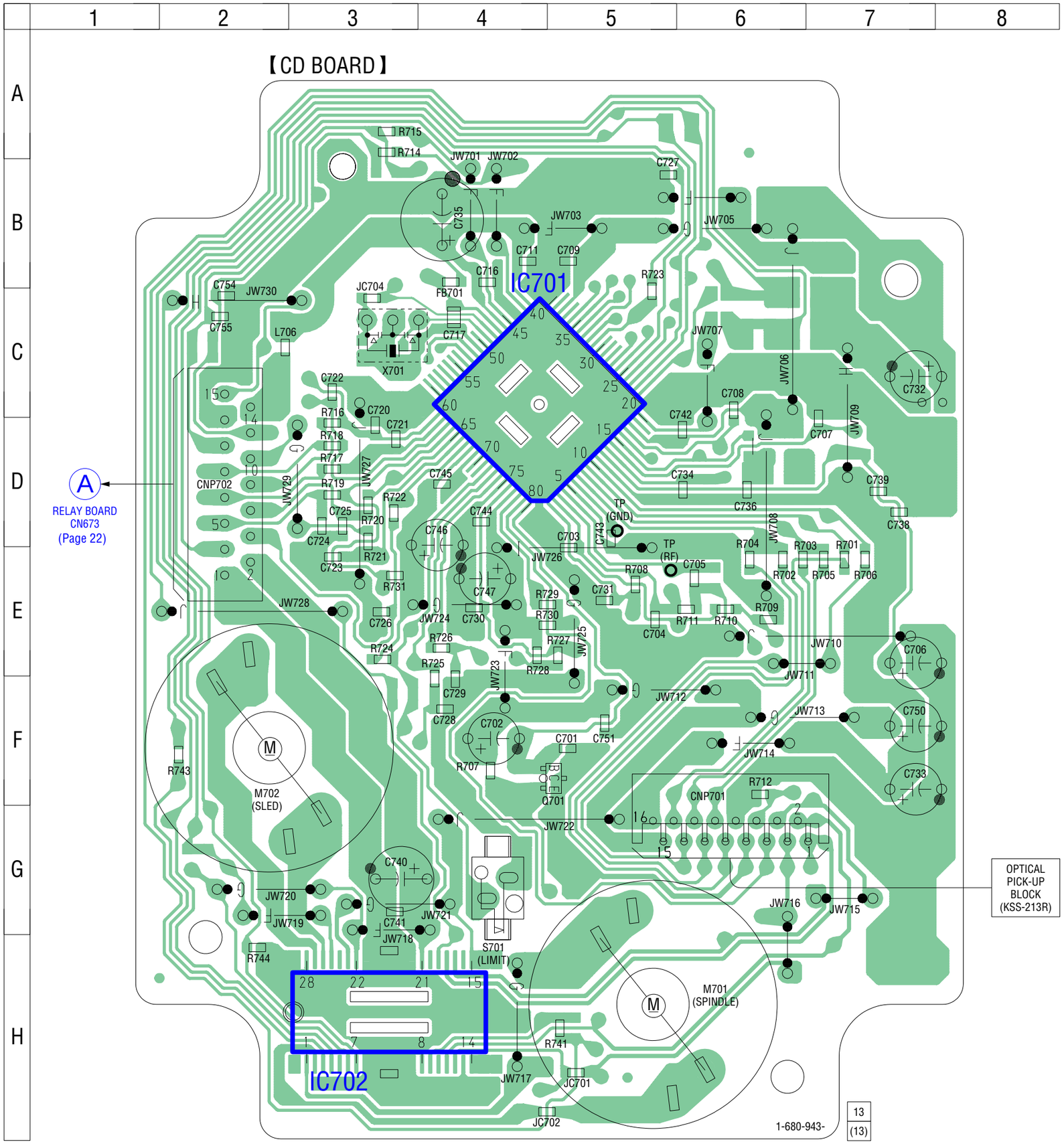
- **Circuit Boards Location**



5-4. PRINTED WIRING BOARD – CD Section – • See page 19 for Circuit Boards Location.

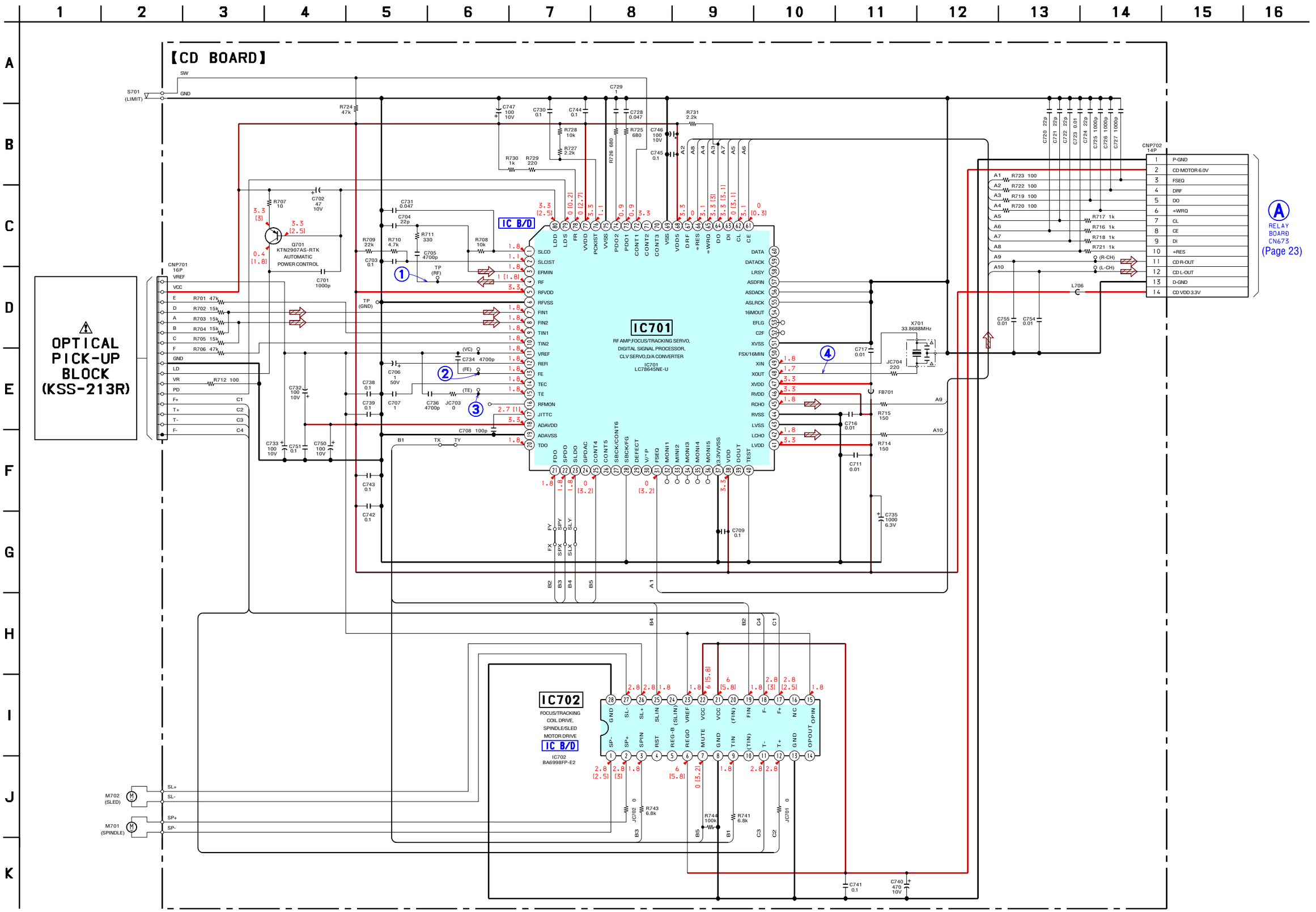
- **Semiconductor Location**

Ref. No.	Location
IC701	C-4
IC702	H-3
Q701	F-5



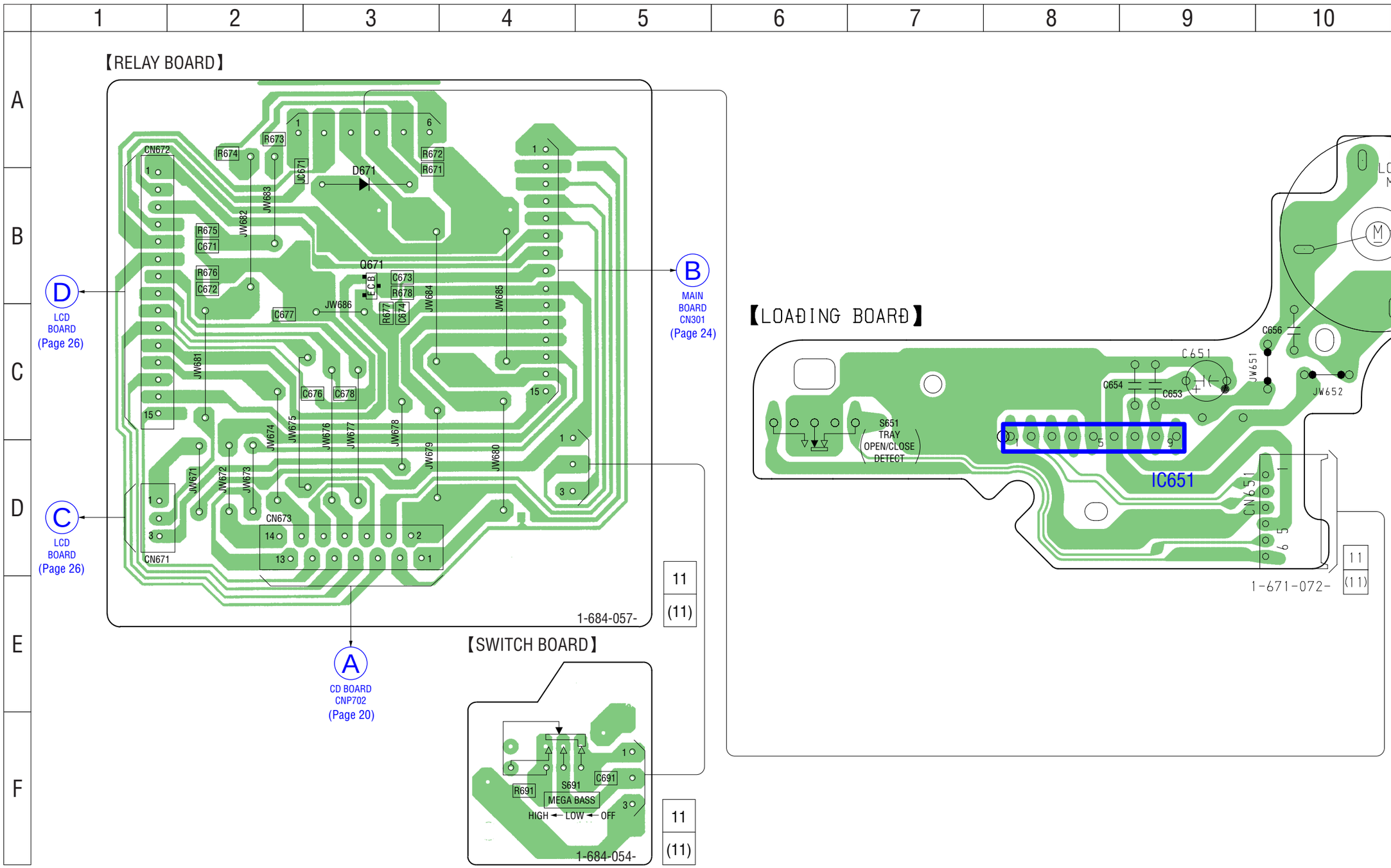
5-5. SCHEMATIC DIAGRAM – CD Section –

• See page 28 for Waveforms. • See page 28 for IC Block Diagrams.



- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark : CD stop
  [ ] : CD play

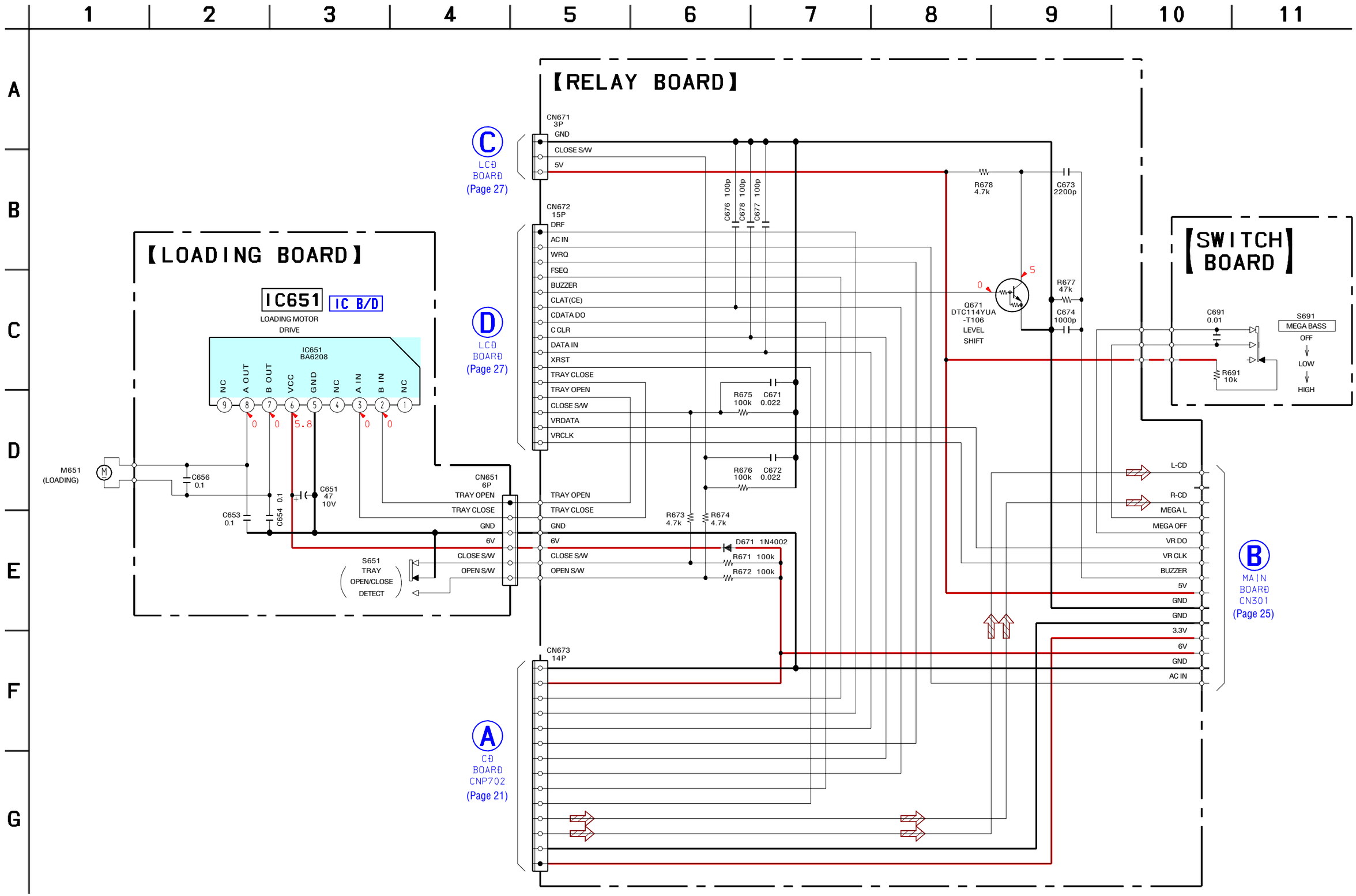
5-6. PRINTED WIRING BOARDS – RELAY Section – • See page 19 for Circuit Boards Location.



- **Semiconductor Location**

Ref. No.	Location
D671	B-3
IC651	C-8
Q671	B-3

5-7. SCHEMATIC DIAGRAM – RELAY Section – • See page 28 for IC Block Diagram.



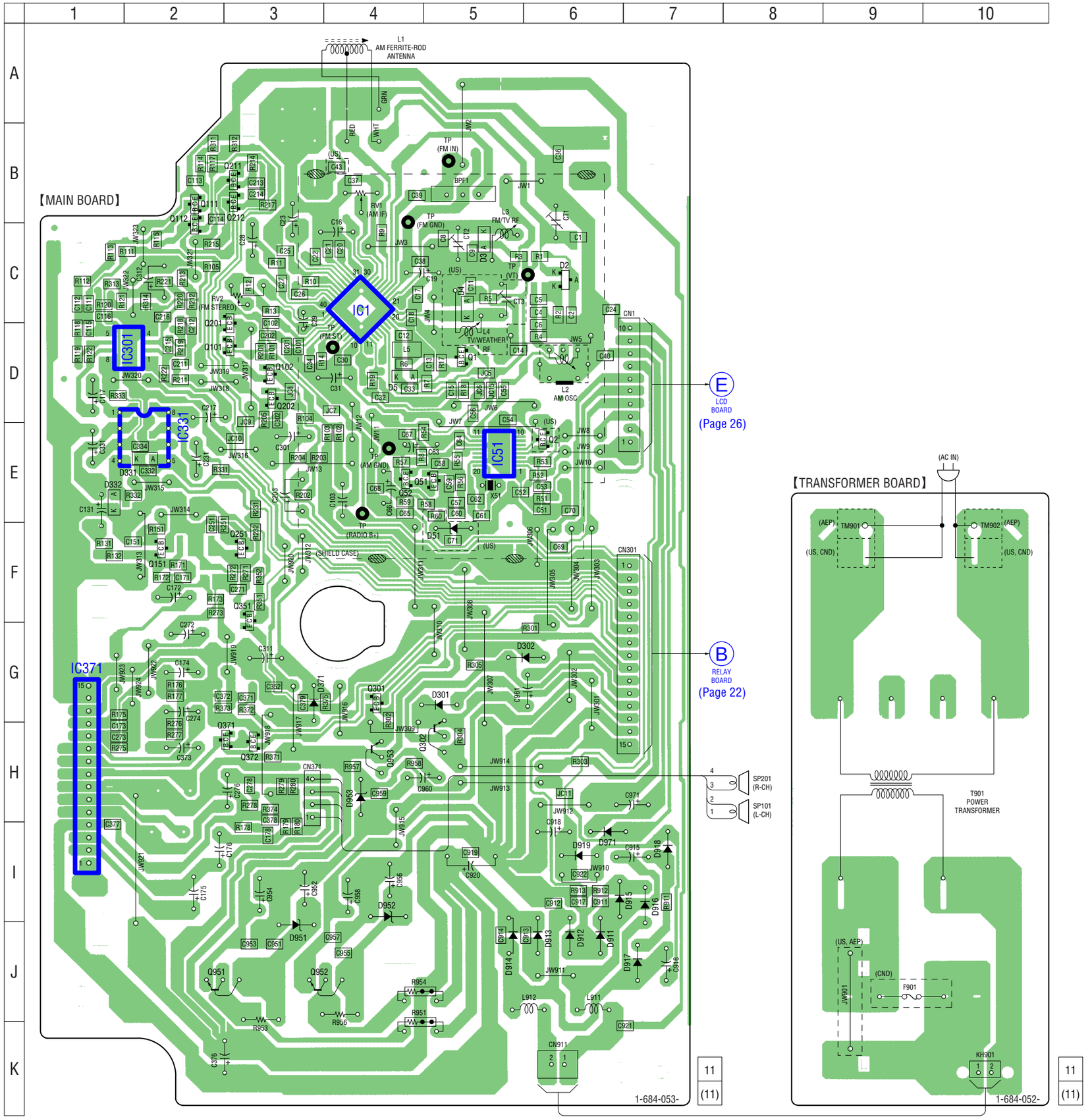
• Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : TUNER

5-8. PRINTED WIRING BOARDS – MAIN Section –

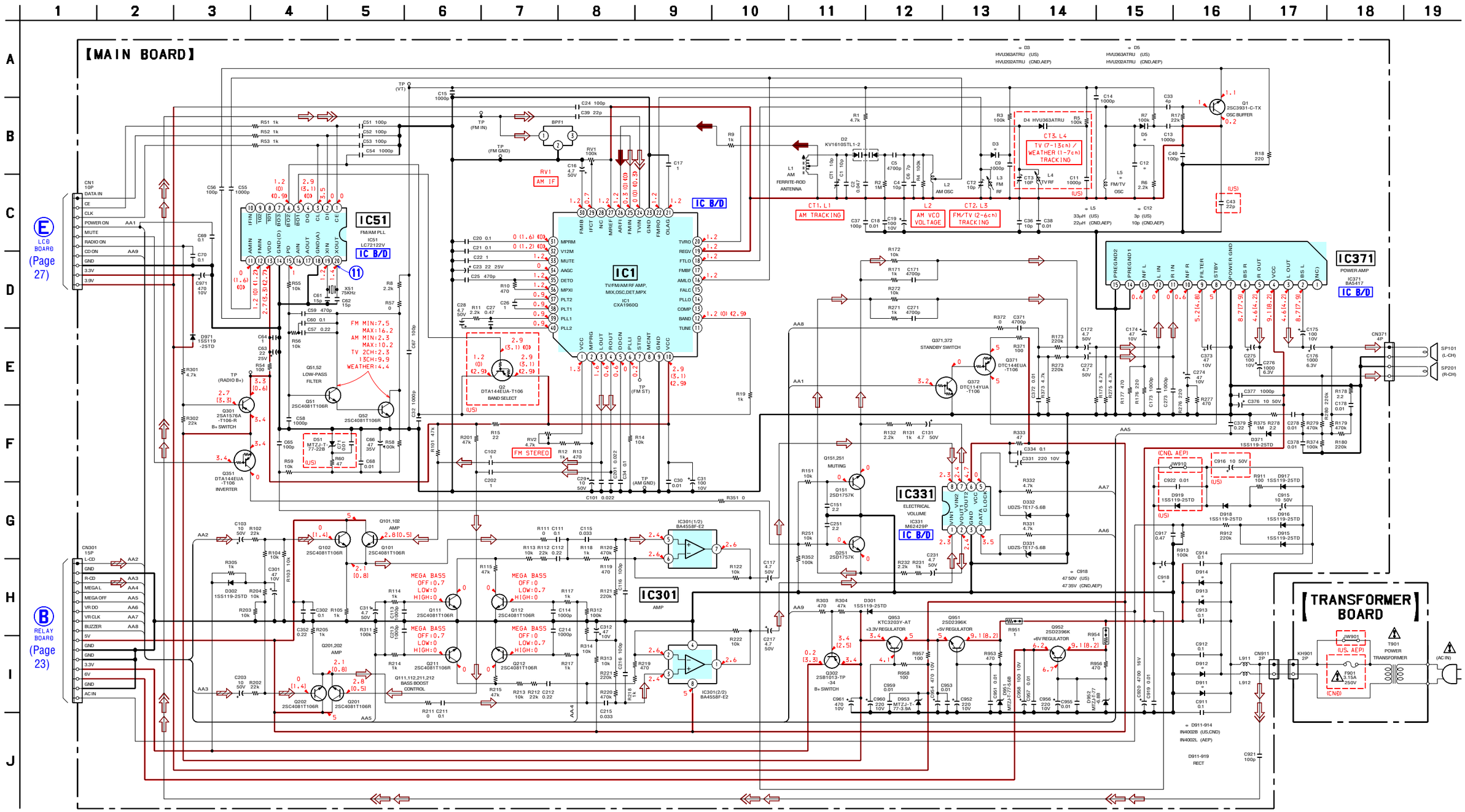
• See page 19 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location
D2	C-6
D3	C-5
D4	C-5
D5	D-4
D51	F-5
D301	G-5
D302	G-6
D331	E-2
D332	E-1
D371	G-3
D911	J-6
D912	J-6
D913	J-6
D913	
D914	J-5
D914	
D915	I-6
D916	I-7
D917	J-7
D918	I-7
D919	I-6
D951	J-3
D952	I-4
D953	H-4
D971	I-6
IC1	C-4
IC51	E-5
IC301	D-2
IC331	E-2
IC371	H-1
Q1	D-5
Q2	E-6
Q51	E-5
Q52	E-4
Q101	D-3
Q102	D-3
Q111	B-2
Q112	C-2
Q151	F-2
Q201	D-3
Q202	D-3
Q211	B-3
Q212	B-3
Q251	F-3
Q301	G-4
Q302	H-5
Q351	F-3
Q371	H-3
Q372	H-3
Q951	J-2
Q952	J-3
Q953	H-4



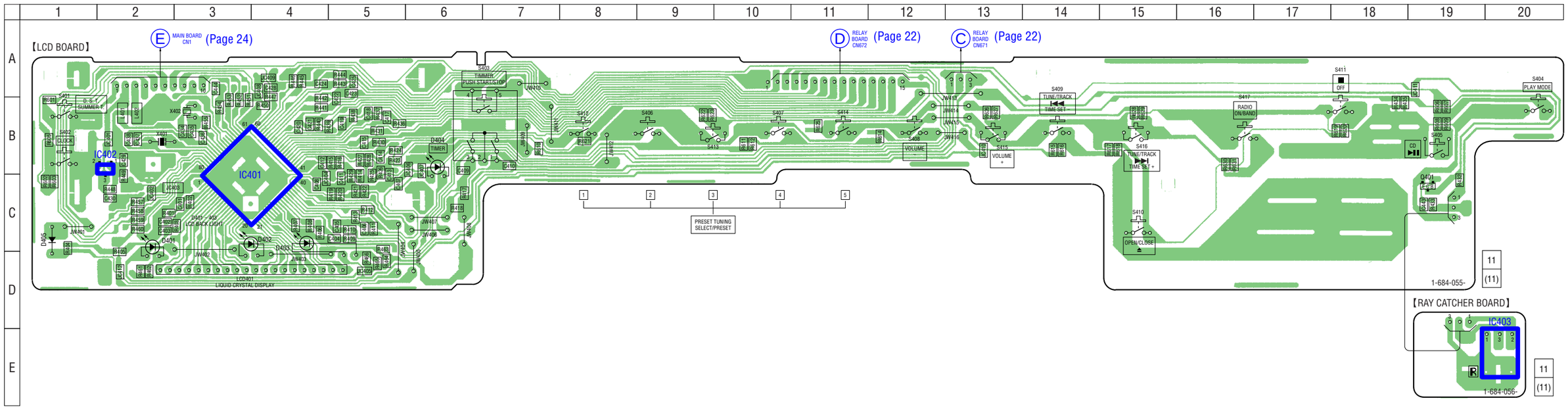
5-9. SCHEMATIC DIAGRAM – MAIN Section – • See page 28 for Waveform. • See page 28 for IC Block Diagrams.



- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM/TV (2 – 6 ch)
  ( ) : AM
  ⟨⟨ ⟩⟩ : TV (7 – 13 ch)/WEATHER (1 – 7 ch)
  [ ] : CD play

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

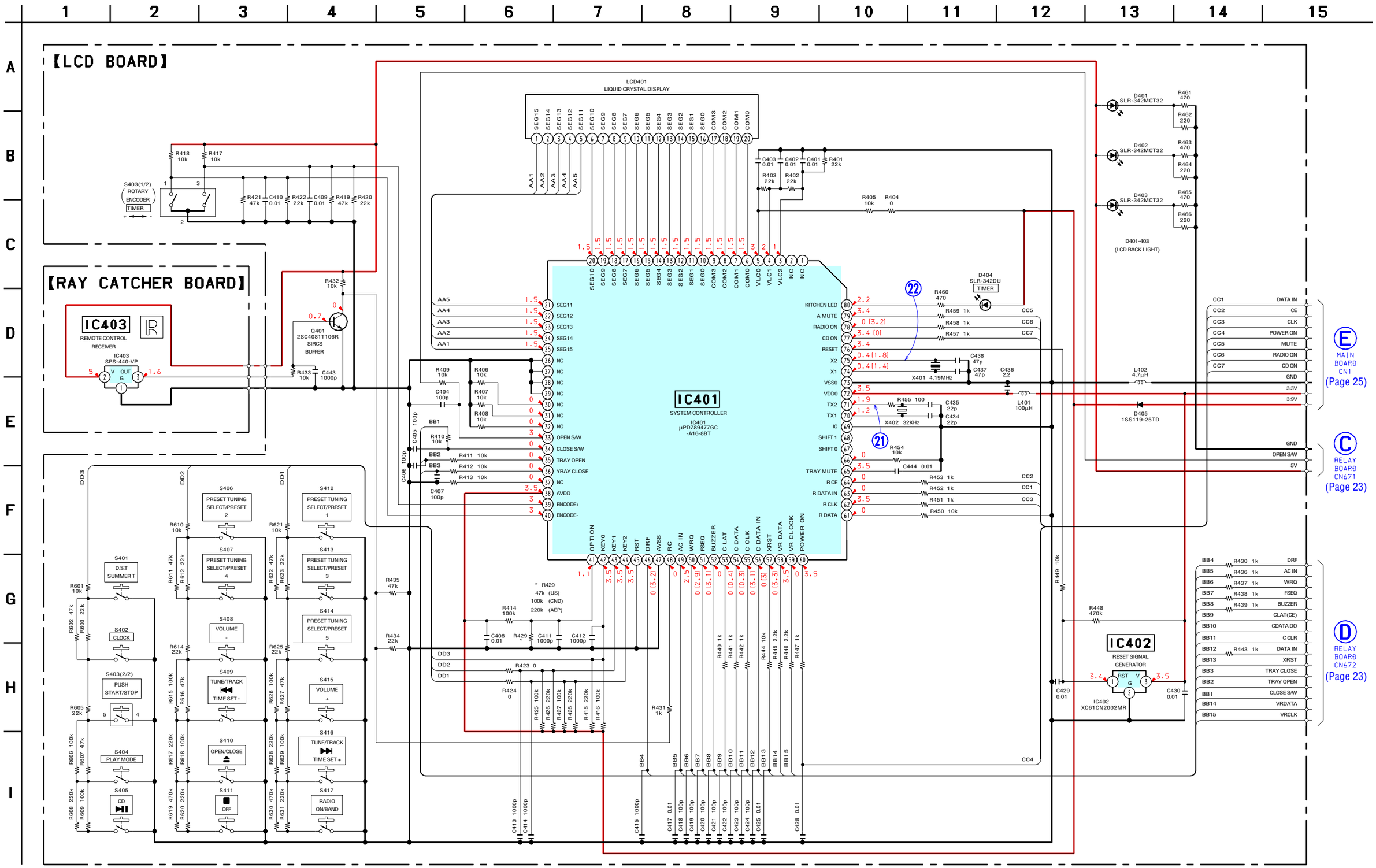
5-10. PRINTED WIRING BOARDS – PANEL Section – • See page 19 for Circuit Boards Location.



- **Semiconductor Location**

Ref. No.	Location
D401	C-2
D402	C-3
D403	D-5
D404	B-6
D405	C-1
IC401	C-3
IC402	B-2
IC403	E-20
Q401	C-19

5-11. SCHEMATIC DIAGRAM – PANEL Section – • See page 28 for Waveform.

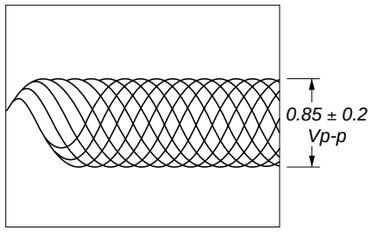


• Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : TUNER
[ ] : CD play

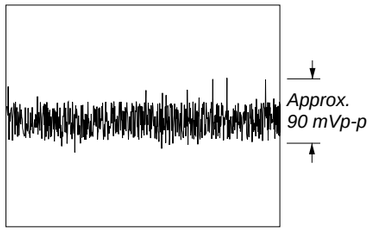
• Waveforms

– CD Board –

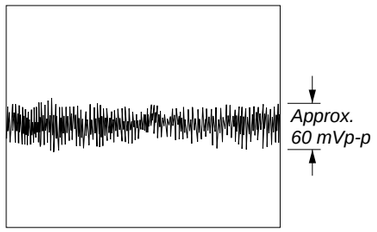
❶ IC701 ④ (RF) (CD PLAY mode)



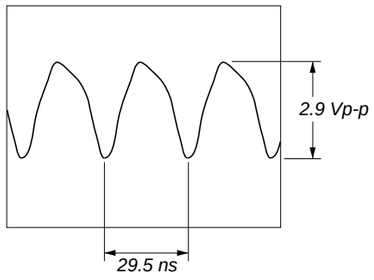
❷ IC701 ⑬ (FE) (CD PLAY mode)



❸ IC701 ⑮ (TE) (CD PLAY mode)

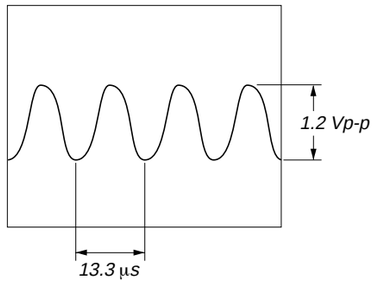


❹ IC701 ㊽ (XOUT)



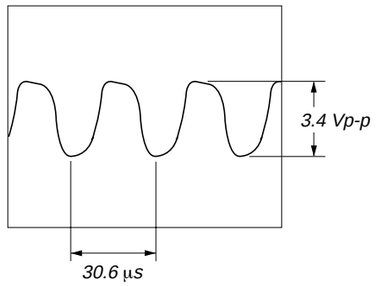
– MAIN Board –

⓫ IC51 ⑳ (XOUT) (RADIO ON mode)

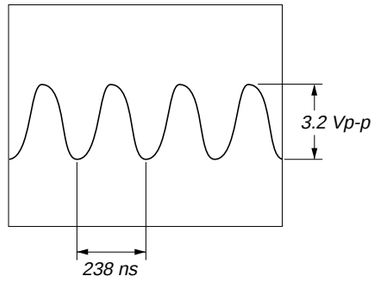


– LCD Board –

㉑ IC401 ㉑ (XT2)



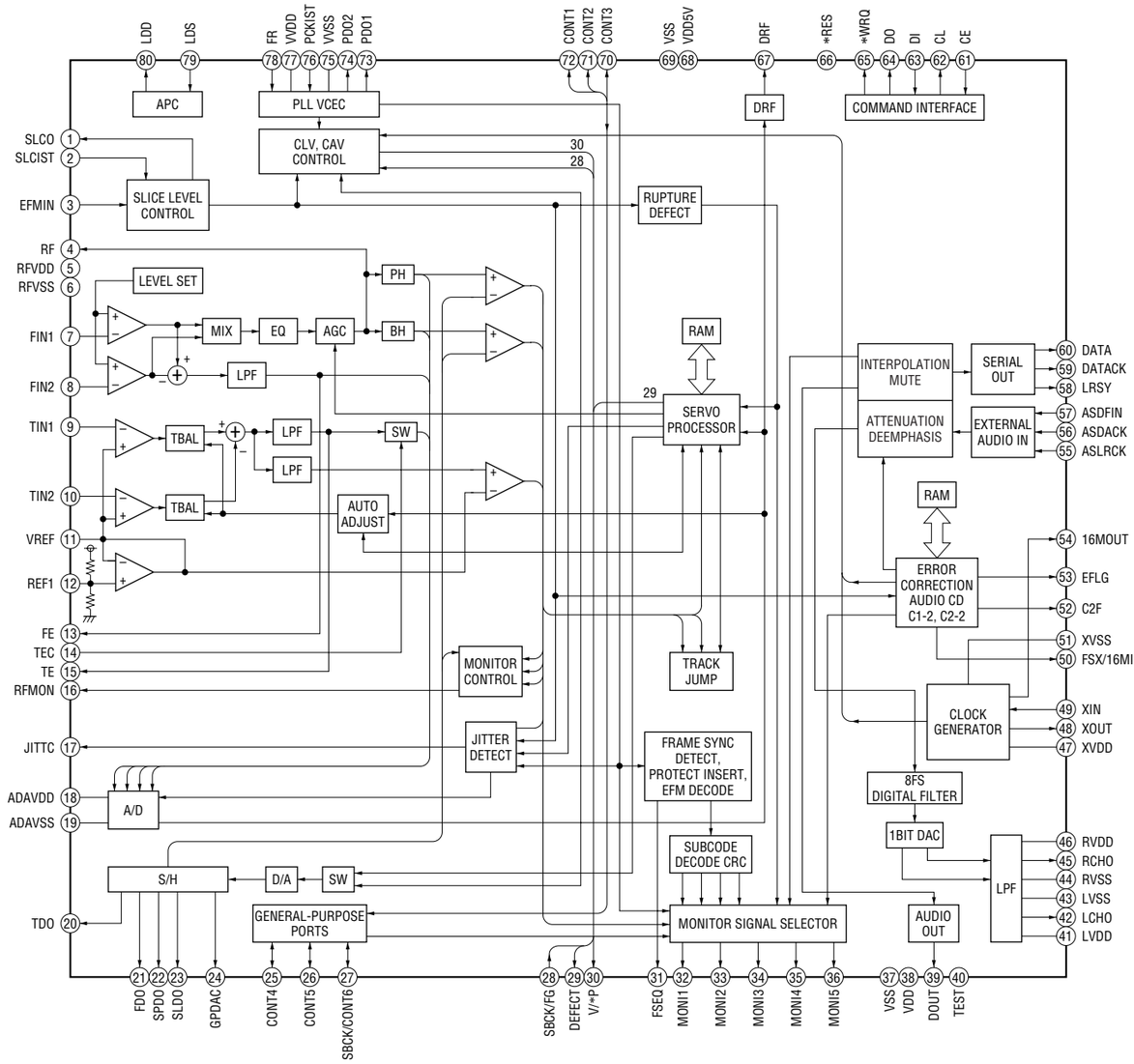
㉒ IC401 ㉕ (X2) (CD PLAY mode)



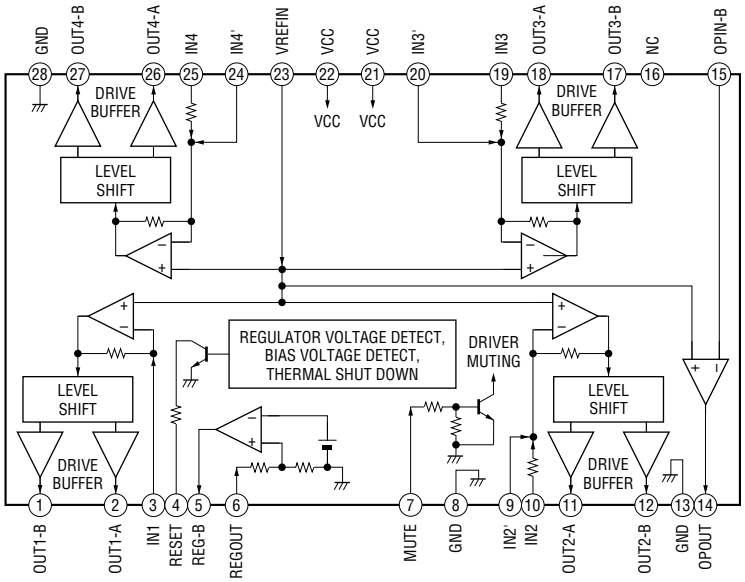
• IC Block Diagrams

– CD Board –

IC701 LC78645NE-U

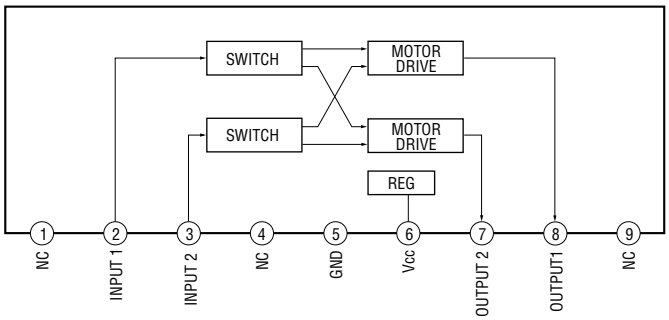


IC702 BA6998FP



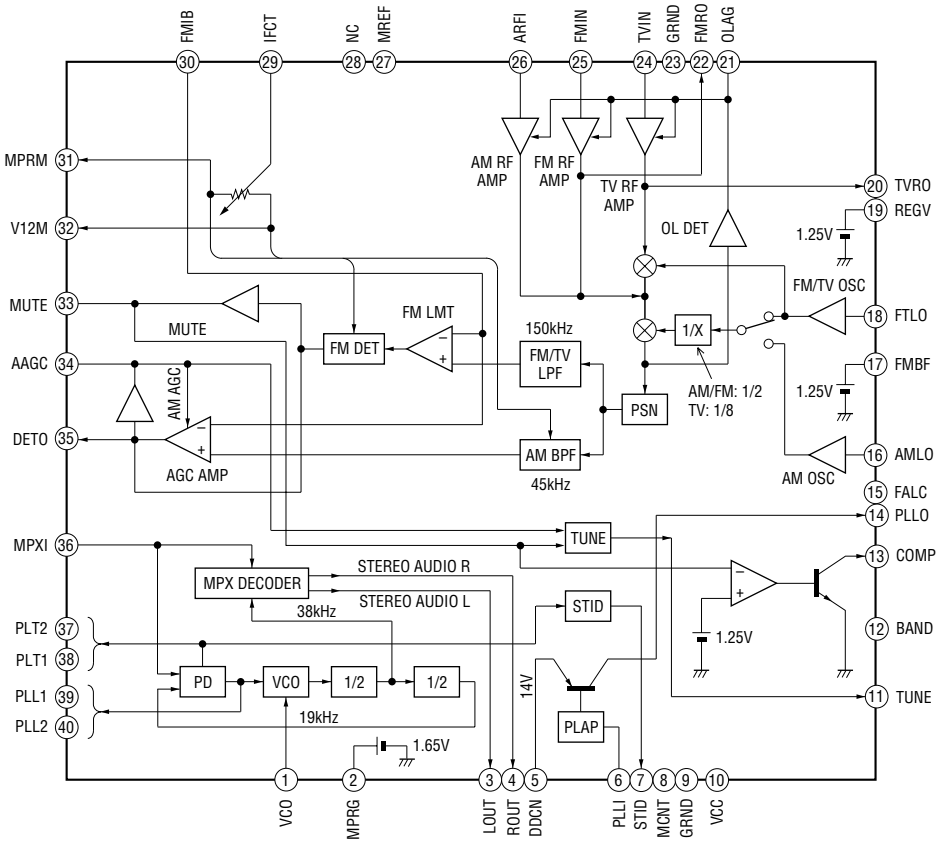
– LOADING Board –

IC651 BA6208

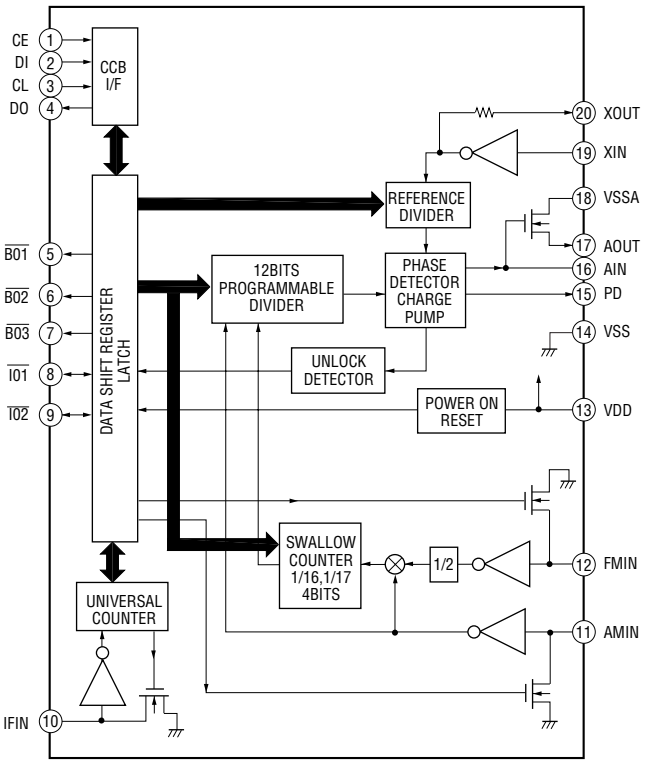


– MAIN Board –

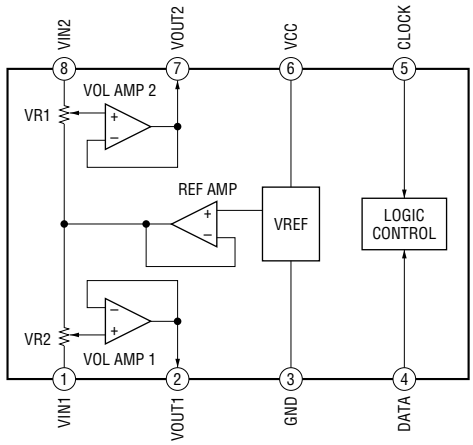
IC1 CXA1960Q



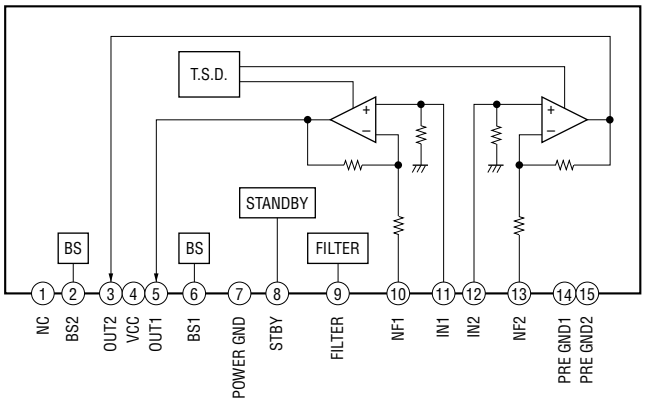
IC51 LC72122V-TLM



IC331 M62429P



IC371 BA5417



5-12. IC PIN FUNCTION DESCRIPTION

• LCD BOARD IC401 μPD789477GC-A16-8BT (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1, 2	NC	—	Not used
3 to 5	VLC0 to VLC2	—	Terminal for doubler circuit capacitor connection to develop liquid crystal display drive voltage
6 to 9	COM0 to COM3	O	Common drive signal output to the liquid crystal display
10 to 25	SEG0 to SEG15	O	Segment drive signal output to the liquid crystal display
26 to 32	NC	—	Not used
33	OPEN S/W	I	Detection input from the tray open/close detect switch "L": when tray is open, "H": when tray is close
34	CLOSE S/W	I	Detection input from the tray open/close detect switch "L": when tray is close, "H": when tray is open
35	TRAY OPEN	O	Motor drive signal output to the disc tray open/close motor driver "H" table out
36	TRAY CLOSE	O	Motor drive signal output to the disc tray open/close motor driver "H" table in
37	NC	—	Not used
38	AVDD	—	Power supply terminal (+3.3V) (analog system)
39	ENCODE +	I	Jog dial pulse input terminal
40	ENCODE –	I	Jog dial pulse input terminal
41	OPTION	I	Destination setting terminal Not used
42 to 44	KEY0 to KEY2	I	Key input terminal (A/D input)
45	RST	—	Not used
46	DRF	I	Focus on/off detection signal input from the digital signal processor
47	AVSS	—	Ground terminal (analog system)
48	RC	I	Remote control signal input from the remote control receiver
49	AC IN	I	Power failure detection signal input terminal "L": power failure, "H": power on
50	WRQ	I	Interruption detection signal input from the digital signal processor
51	FSEQ	I	Synchronizing signal detection signal input from the digital signal processor
52	BUZZER	O	Buzzer sound drive signal output
53	C LAT	O	Chip enable signal output to the digital signal processor
54	C DATA	O	Serial data output to the digital signal processor
55	C CLK	O	Serial data transfer clock signal output to the digital signal processor
56	C DATA IN	I	Serial data input from the digital signal processor
57	XRST	O	Reset signal output to the digital signal processor "L": reset
58	VR DATA	O	Volume data output
59	VR CLOCK	O	Volume clock signal output
60	POWER ON	O	Power amplifier on/off control signal output "L": standby mode, "H": power amplifier on
61	R DATA	O	Serial data output terminal Not used
62	R CLK	O	Serial data transfer clock signal output to the FM/AM PLL
63	R DATA IN	I	Serial data input from the FM/AM PLL
64	R CE	O	Chip enable signal output to the FM/AM PLL
65	TRAY MUTE	O	Not used
66	NC	—	Not used
67	SHIFT 0	—	Not used
68	SHIFT 1	—	Not used
69	IC	—	Internal connection terminal
70	TX1	I	Sub system clock input terminal (32.768 kHz)
71	TX2	O	Sub system clock output terminal (32.768 kHz)

Pin No.	Pin Name	I/O	Description
72	VDD0	—	Power supply terminal (+3.3V)
73	VSS0	—	Ground terminal
74	X1	I	Main system clock input terminal (4.19 MHz)
75	X2	O	Main system clock output terminal (4.19 MHz)
76	$\overline{\text{RESET}}$	I	System reset signal input "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
77	$\overline{\text{CD ON}}$	O	Power on/off control signal output for the CD +3.3V power supply "L": CD power on
78	$\overline{\text{RADIO ON}}$	O	Power on/off control signal output for the radio +3.3V power supply "L": radio power on
79	$\overline{\text{A MUTE}}$	O	Audio line muting on/off control signal output "L": muting on
80	KITCHEN LED	O	LED drive signal output of the TIMER "L": LED on

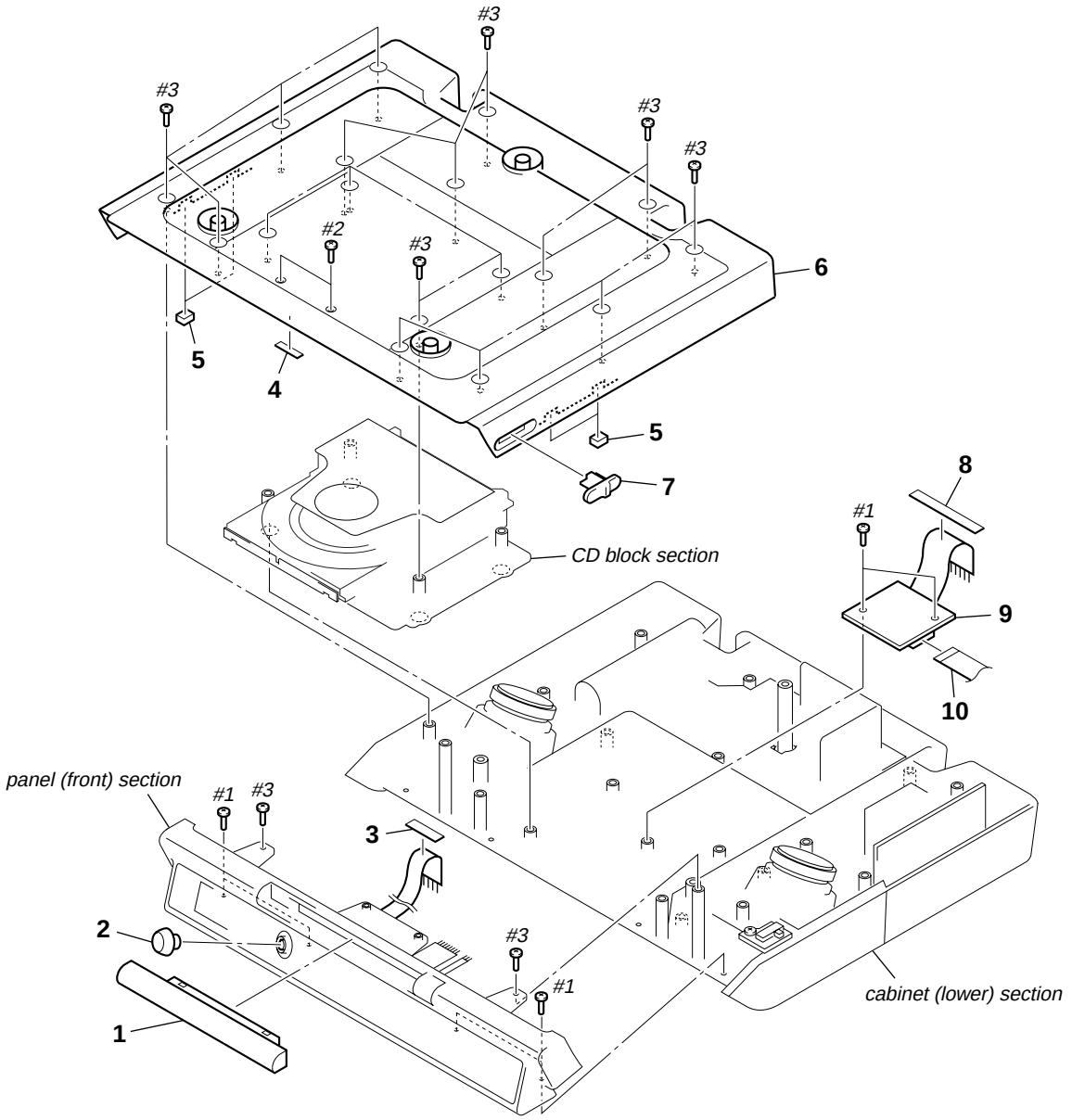
SECTION 6
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Accessories are given in the last of the electrical parts list.
- Abbreviation
  CND : Canadian model
- There are three types of US model, refer to SERVICING NOTES on page 3.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

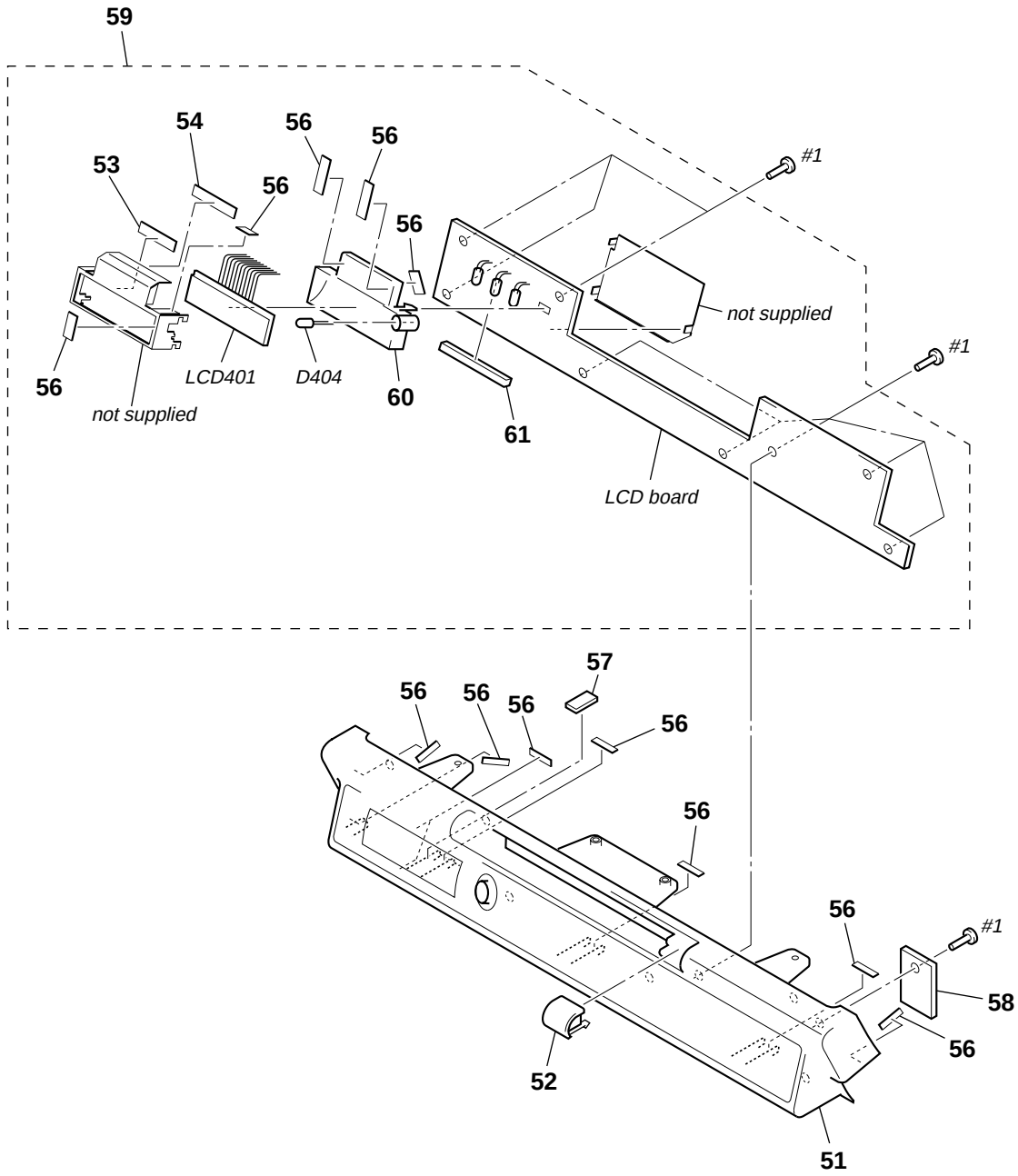
Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. CABINET (UPPER) SECTION



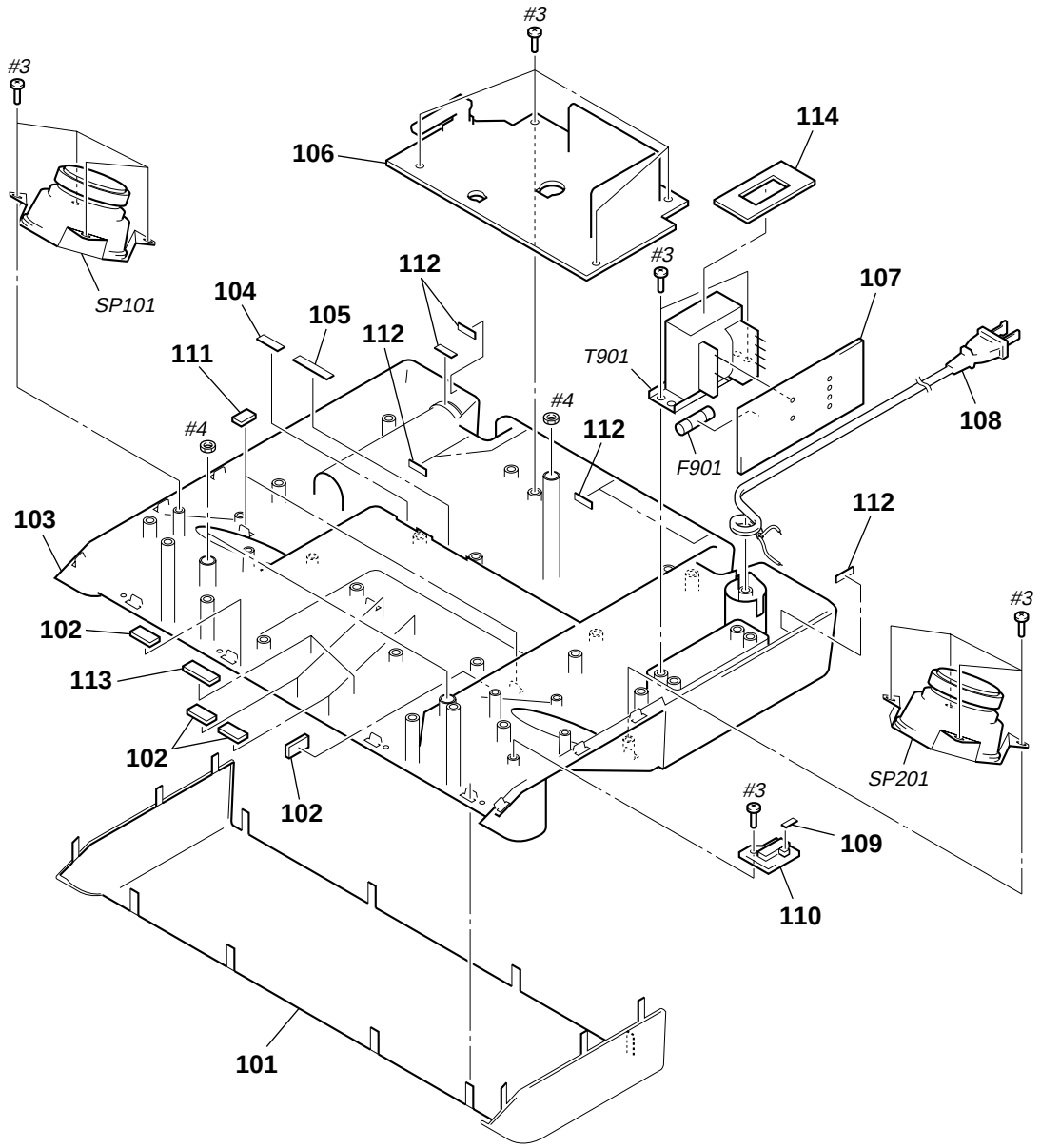
Ref. No.	Part No.	Description	Remark
1	3-238-567-01	LID, CD (US: ORIGINAL TYPE, SILVER TYPE, CND, AEP)	
1	3-238-567-11	LID, CD (US: LIV TYPE)	
2	3-238-566-01	KNOB (TIMER) (US: ORIGINAL TYPE, SILVER TYPE, CND, AEP)	
2	3-238-566-11	KNOB (TIMER) (US: LIV TYPE)	
3	3-241-678-01	CUSHION (1041)	
4	3-242-622-01	CUSHION (A)	
5	3-238-838-01	GASKET (A)	
6	3-238-866-01	CABINET (UPPER) (US: ORIGINAL TYPE, CND)	
6	3-238-866-11	CABINET (UPPER) (AEP)	
6	3-238-866-21	CABINET (UPPER) (US: LIV TYPE)	
6	3-238-866-31	CABINET (UPPER) (US: SILVER TYPE)	
7	3-238-565-01	KNOB (MEGA BASE) (US: ORIGINAL TYPE, CND)	
7	3-238-565-11	KNOB (MEGA BASE) (US: SILVER TYPE, AEP)	
7	3-238-565-21	KNOB (MEGA BASE) (US: LIV TYPE)	
8	3-241-679-01	CUSHION (1062)	
* 9	A-3178-334-A	RELAY BOARD, COMPLETE	
10	1-823-760-11	CABLE, FLEXIBLE FLAT (14 CORE)	
#1	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	
#2	7-685-146-14	SCREW +P 3X8 TYPE2 NON-SLIT	
#3	7-685-549-14	SCREW +BTP 3X14 TYPE2 N-S	

6-2. PANEL (FRONT) SECTION



Ref. No.	Part No.	Description	Remark
51	X-3382-365-1	PANEL (FRONT) ASSY (US: ORIGINAL TYPE, SILVER TYPE)	
51	X-3382-366-1	PANEL (FRONT) ASSY (AEP)	
51	X-3382-367-1	PANEL (FRONT) ASSY (CND)	
51	X-3382-368-1	PANEL (FRONT) ASSY (US: LIV TYPE)	
52	3-238-568-01	BUTTON (OPEN) (US: ORIGINAL TYPE, SILVER TYPE, CND, AEP)	
52	3-238-568-11	BUTTON (OPEN) (US: LIV TYPE)	
53	3-241-678-01	CUSHION (1041)	
54	3-241-679-01	CUSHION (1062)	
56	3-242-622-01	CUSHION (A)	
57	3-242-626-01	CUSHION (T2)	
* 58	1-684-056-11	RAY CATCHER BOARD	
* 59	A-3021-777-A	LCD BOARD, COMPLETE (US)	
* 59	A-3021-883-A	LCD BOARD, COMPLETE (CND)	
* 59	A-3021-889-A	LCD BOARD, COMPLETE (AEP)	
60	3-238-563-01	HOLDER (LCD)	
61	3-238-857-01	SPACER (LED)	
D404	8-719-053-59	DIODE SLR-342DU (TIMER)	
LCD401	1-804-648-11	DISPLAY PANEL, LIQUID CRYSTAL	
#1	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	

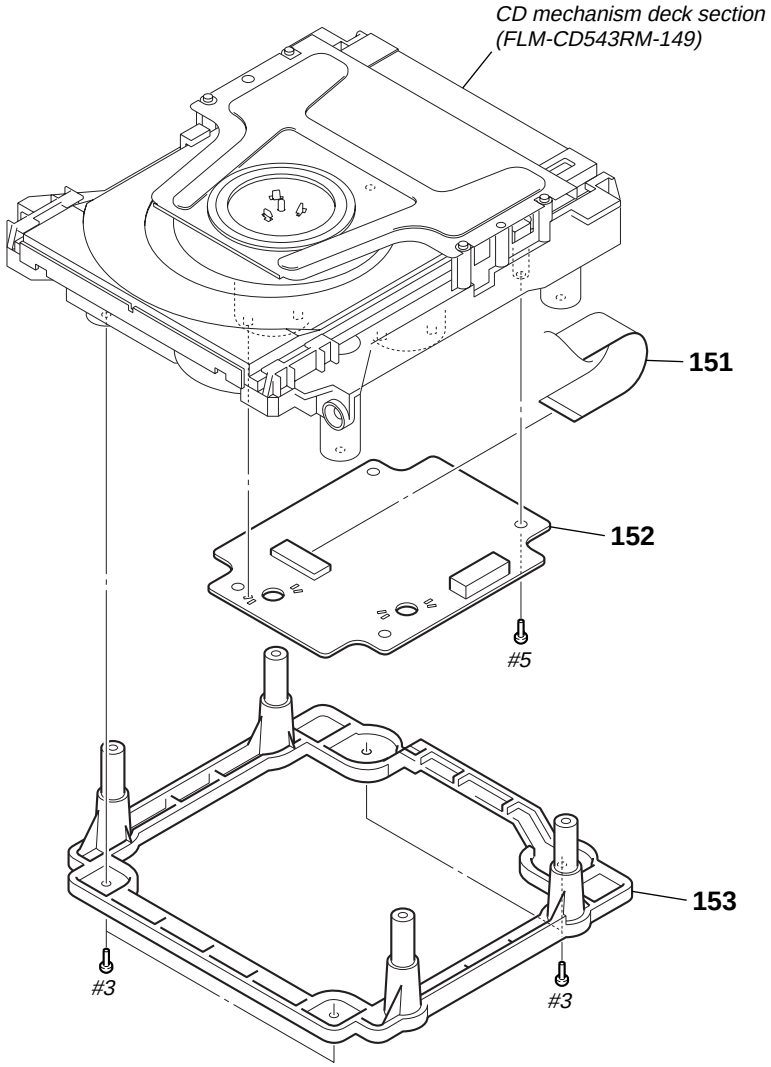
6-3. CABINET (LOWER) SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
101	3-238-859-01	PANEL (SP) (US: ORIGINAL TYPE, CND)	
101	3-238-859-11	PANEL (SP) (US: SILVER TYPE, AEP)	
101	3-238-859-21	PANEL (SP) (US: LIV TYPE)	
102	3-242-626-01	CUSHION (T2)	
103	X-3381-653-1	CABINET (LOWER) ASSY (US: ORIGINAL TYPE, CND)	
103	X-3381-654-1	CABINET (LOWER) ASSY (AEP)	
103	X-3381-915-1	CABINET (LOWER) ASSY (US: LIV TYPE)	
103	X-3382-262-1	CABINET (LOWER) ASSY (US: SILVER TYPE)	
104	3-241-678-01	CUSHION (1041)	
105	3-241-679-01	CUSHION (1062)	
* 106	A-3021-773-A	MAIN BOARD, COMPLETE (US)	
* 106	A-3021-881-A	MAIN BOARD, COMPLETE (CND)	
* 106	A-3323-863-A	MAIN BOARD, COMPLETE (AEP)	
* 107	1-684-052-11	TRANSFORMER BOARD	
⚠108	1-777-921-23	CORD, POWER (AEP)	
⚠108	1-783-817-51	CORD, POWER (US, CND)	
109	3-242-623-01	CUSHION (B)	
* 110	1-684-054-11	SWITCH BOARD	
111	3-243-371-01	CUSHION (C)	
112	3-242-622-01	CUSHION (A)	
113	3-244-134-01	CUSHION (T6)	
114	3-244-190-01	CUSHION (TRANSFORMER)	
⚠F901	1-576-107-12	FUSE (3.15A/250V) (CND)	
SP101	1-529-478-11	SPEAKER (7.7cm)	
SP201	1-529-478-11	SPEAKER (7.7cm)	
⚠T901	1-435-921-11	TRANSFORMER, POWER (AEP)	
⚠T901	1-435-974-11	TRANSFORMER, POWER (US)	
⚠T901	1-437-351-11	TRANSFORMER, POWER (CND)	
#3	7-685-549-14	SCREW +BTP 3X14 TYPE2 N-S	
#4	7-684-025-04	N 5, TYPE 2	

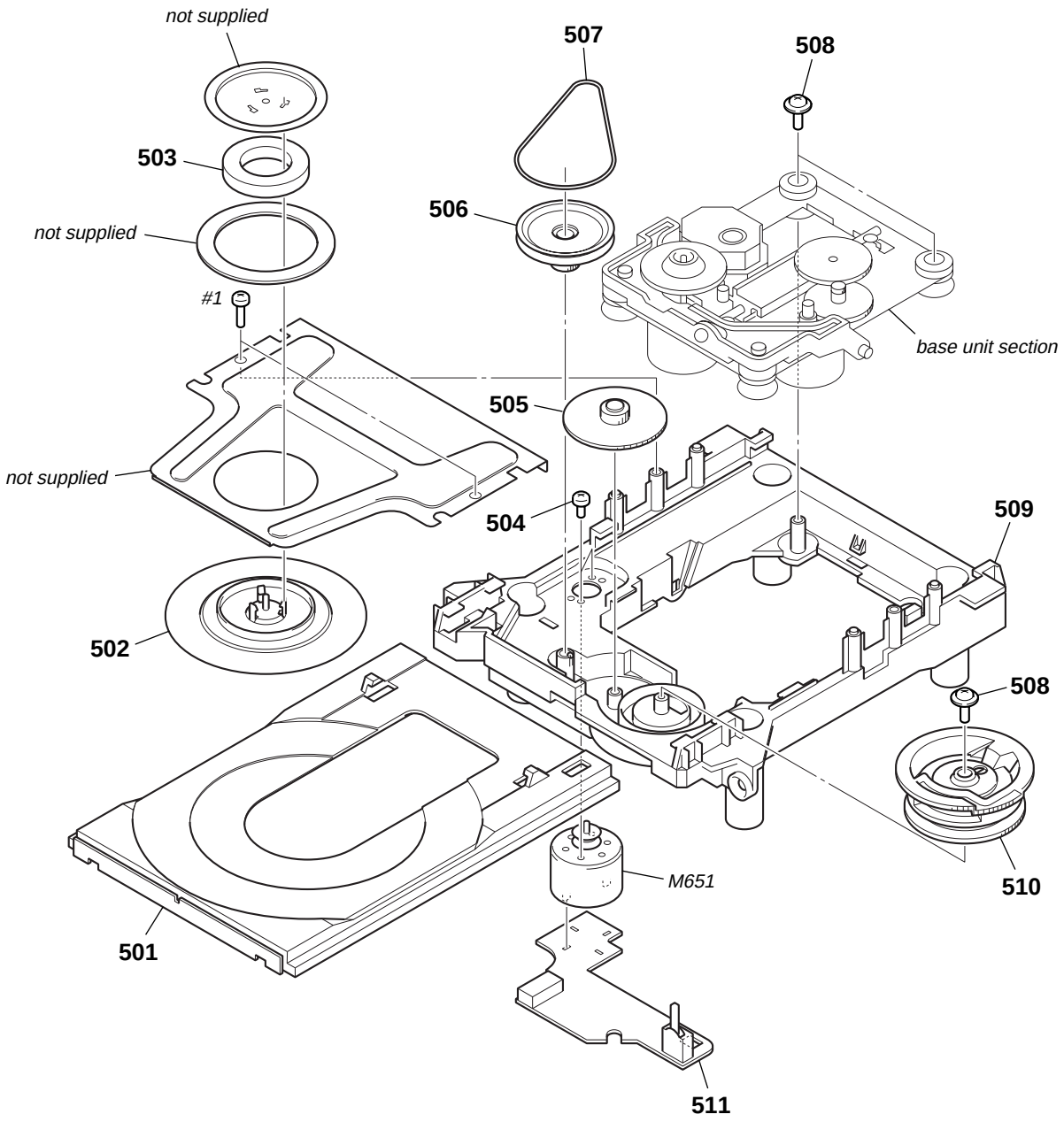
6-4. CD BLOCK SECTION



Ref. No.	Part No.	Description	Remark
151	1-757-689-11	CABLE, FLEXIBLE FLAT (16 CORE)	
* 152	A-3347-089-A	CD BOARD, COMPLETE	
153	3-238-562-01	HOLDER (MD)	

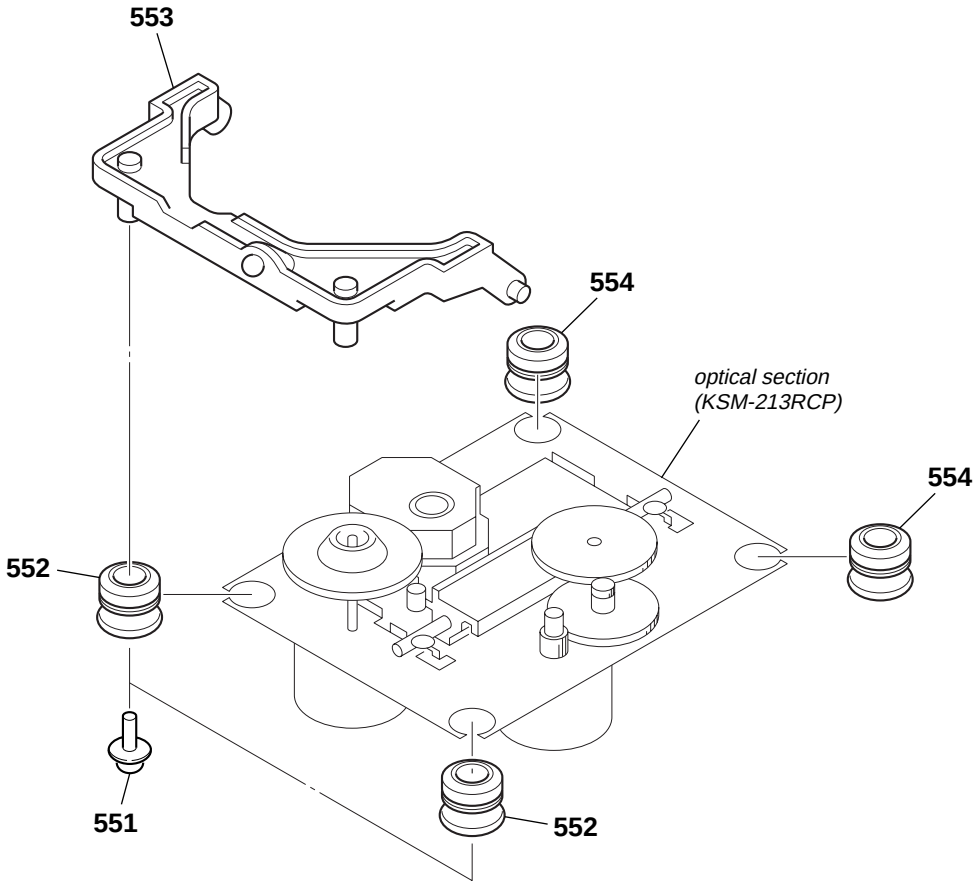
Ref. No.	Part No.	Description	Remark
#3	7-685-549-14	SCREW +BTP 3X14 TYPE2 N-S	
#5	7-685-853-04	SCREW +BVTT 2X6 (S)	

6-5. CD MECHANISM DECK SECTION (FLM-CD543RM-149)



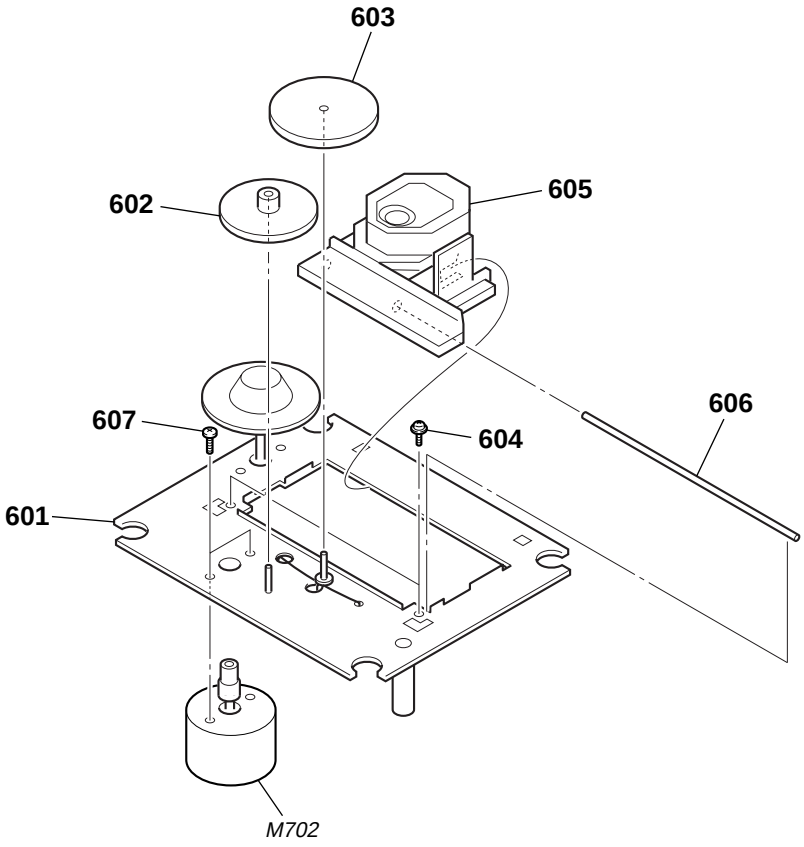
Ref. No.	Part No.	Description	Remark
501	3-028-010-01	TRAY	
502	3-028-019-02	PLATE, CHUCK	
503	1-452-899-21	MAGNET	
504	3-713-786-51	SCREW (M2X3)	
505	3-028-014-01	GEAR	
506	3-028-015-01	PULLEY	
507	3-933-020-01	BELT	
508	3-921-725-11	SCREW (2.6X10), +PWH	
* 509	3-028-009-04	CHASSIS	
510	3-028-013-01	GEAR, DRIVE	
* 511	1-671-072-11	LOADING BOARD	
M651	A-3320-538-A	MOTOR ASSY, LOADING	
#1	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	

6-6. BASE UNIT SECTION



Ref. No.	Part No.	Description	Remark
551	3-921-725-01	SCREW (2.6X10), +PWH	
552	3-910-095-31	RUBBER, VIBRATION PROOF (GREEN)	
553	3-028-011-01	ARM	
554	3-910-095-21	RUBBER, VIBRATION PROOF (RED)	

6-7. OPTICAL BLOCK (KSM-213RCP)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
601	X-2162-708-1	CHASSIS ASSY (RCP) (RP), MOTOR (SPINDLE) (including M701)	
* 602	2-647-408-02	GEAR (B)	
* 603	2-169-065-01	GEAR (A)	
604	2-169-388-01	TAPPING (M2), +PWB	
⚠605	8-820-161-02	OPTICAL PICK-UP (KSS-213R/C2RP)	
606	2-626-908-01	SHAFT, SLED	
607	3-713-786-51	SCREW (M2X3)	
M702	X-2162-712-1	GEAR ASSY (R) (RP), MOTOR (SLED)	

SECTION 7
ELECTRICAL PARTS LIST

CD

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  CND : Canadian model
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-3347-089-A	CD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C701	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C702	1-126-947-11	ELECT	47uF	20%	10V
C703	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C704	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C705	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C706	1-126-960-11	ELECT	1uF	20%	50V
C707	1-115-156-11	CERAMIC CHIP	1uF		10V
C708	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C709	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C711	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C716	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C717	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C720	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C721	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C722	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C723	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C724	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C725	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C726	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C727	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C728	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C729	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C730	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C731	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C732	1-104-665-11	ELECT	100uF	20%	10V
C733	1-104-665-11	ELECT	100uF	20%	10V
C734	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C735	1-126-916-11	ELECT	1000uF	20%	6.3V
C736	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C738	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C739	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C740	1-126-935-11	ELECT	470uF	20%	10V
C741	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C742	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C743	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C744	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C745	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C746	1-104-665-11	ELECT	100uF	20%	10V
C747	1-104-665-11	ELECT	100uF	20%	10V
C750	1-104-665-11	ELECT	100uF	20%	10V
C751	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C754	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C755	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
CNP701	1-779-466-11	CONNECTOR, FFC (LIF (NON-ZIF)) 16P			
* CNP702	1-784-736-11	CONNECTOR, FFC 14P			
		< COIL >			
FB701	1-469-701-21	INDUCTOR 0uH			
		< IC >			
IC701	6-701-617-01	IC LC78645NE-U			
IC702	8-759-591-62	IC BA6998FP			
		< RESISTOR >			
JC701	1-216-864-11	METAL CHIP	0		
JC702	1-216-864-11	METAL CHIP	0		
JC703	1-216-864-11	METAL CHIP	0		
JC704	1-216-813-11	METAL CHIP	220	5%	1/16W
		< FERRITE BEAD >			
L706	1-414-445-11	FERRITE 0uH			
		< TRANSISTOR >			
Q701	8-729-054-57	TRANSISTOR KTN2907AS-RTK			
		< RESISTOR >			
R701	1-216-841-11	METAL CHIP	47K	5%	1/16W
R702	1-216-835-11	METAL CHIP	15K	5%	1/16W
R703	1-216-835-11	METAL CHIP	15K	5%	1/16W
R704	1-216-835-11	METAL CHIP	15K	5%	1/16W
R705	1-216-835-11	METAL CHIP	15K	5%	1/16W
R706	1-216-841-11	METAL CHIP	47K	5%	1/16W
R707	1-216-797-11	METAL CHIP	10	5%	1/16W
R708	1-216-833-11	METAL CHIP	10K	5%	1/16W
R709	1-216-837-11	METAL CHIP	22K	5%	1/16W
R710	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R711	1-216-815-11	METAL CHIP	330	5%	1/16W
R712	1-216-809-11	METAL CHIP	100	5%	1/16W
R714	1-216-811-11	METAL CHIP	150	5%	1/16W
R715	1-216-811-11	METAL CHIP	150	5%	1/16W

CD **LCD**

Ref. No.	Part No.	Description			Remark
R716	1-216-821-11	METAL CHIP	1K	5%	1/16W
R717	1-216-821-11	METAL CHIP	1K	5%	1/16W
R718	1-216-821-11	METAL CHIP	1K	5%	1/16W
R719	1-216-809-11	METAL CHIP	100	5%	1/16W
R720	1-216-809-11	METAL CHIP	100	5%	1/16W
R721	1-216-821-11	METAL CHIP	1K	5%	1/16W
R722	1-216-809-11	METAL CHIP	100	5%	1/16W
R723	1-216-809-11	METAL CHIP	100	5%	1/16W
R724	1-216-841-11	METAL CHIP	47K	5%	1/16W
R725	1-216-819-11	METAL CHIP	680	5%	1/16W
R726	1-216-819-11	METAL CHIP	680	5%	1/16W
R727	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R728	1-216-833-11	METAL CHIP	10K	5%	1/16W
R729	1-216-813-11	METAL CHIP	220	5%	1/16W
R730	1-216-821-11	METAL CHIP	1K	5%	1/16W
R731	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R741	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R743	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R744	1-216-845-11	METAL CHIP	100K	5%	1/16W
		< SWITCH >			
S701	1-571-936-11	SWITCH, LEAF (LIMIT)			
		< VIBRATOR >			
X701	1-795-173-21	VIBRATOR, CERAMIC (33.8688MHz)			
**********					
*	A-3021-777-A	LCD BOARD, COMPLETE (US)			
*	A-3021-883-A	LCD BOARD, COMPLETE (CND)			
*	A-3021-889-A	LCD BOARD, COMPLETE (AEP)			
		**********			
	3-238-563-01	HOLDER (LCD)			
	3-238-857-01	SPACER (LED)			
	3-242-622-01	CUSHION (A)			
		< CAPACITOR >			
C401	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C402	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C403	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C404	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C405	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C406	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C407	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C408	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C409	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C410	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C411	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C412	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C413	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C414	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C415	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C417	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C418	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C419	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C420	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C421	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C422	1-162-927-11	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description			Remark
C423	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C424	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C425	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C428	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C429	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C430	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C434	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C435	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C436	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V
C437	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C438	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C443	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C444	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< DIODE >			
D401	8-719-070-74	LED SLR-342MCT32 (LCD BACKLIGHT)			
D402	8-719-070-74	LED SLR-342MCT32 (LCD BACKLIGHT)			
D403	8-719-070-74	LED SLR-342MCT32 (LCD BACKLIGHT)			
D404	8-719-053-59	LED SLR-342DU (TIMER)			
D405	8-719-911-19	DIODE 1SS119-25TD			
		< IC >			
IC401	6-801-332-01	IC uPD789477GC-A16-8BT			
IC402	8-759-682-21	IC XC61CN2002MR			
		< RESISTOR >			
JC401	1-216-864-11	METAL CHIP	0		
JC402	1-216-864-11	METAL CHIP	0		
JC403	1-216-296-11	SHORT	0		
JC404	1-216-864-11	METAL CHIP	0		
JC405	1-216-864-11	METAL CHIP	0		
JC406	1-216-864-11	METAL CHIP	0		
JC407	1-216-864-11	METAL CHIP	0		
JC408	1-216-864-11	METAL CHIP	0		
JC409	1-216-864-11	METAL CHIP	0		
JC410	1-216-864-11	METAL CHIP	0		
JC411	1-216-864-11	METAL CHIP	0		
JC412	1-216-864-11	METAL CHIP	0		
		< COIL >			
L401	1-412-963-11	INDUCTOR 100uH			
L402	1-412-947-11	INDUCTOR 4.7uH			
		< LIQUID CRYSTAL DISPLAY >			
LCD401	1-804-648-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< TRANSISTOR >			
Q401	8-729-905-35	TRANSISTOR 2SC4081T106R			
		< RESISTOR >			
R401	1-216-837-11	METAL CHIP	22K	5%	1/16W
R402	1-216-837-11	METAL CHIP	22K	5%	1/16W
R403	1-216-837-11	METAL CHIP	22K	5%	1/16W
R404	1-216-864-11	METAL CHIP	0		
R405	1-216-833-11	METAL CHIP	10K	5%	1/16W
R406	1-216-833-11	METAL CHIP	10K	5%	1/16W
R407	1-216-833-11	METAL CHIP	10K	5%	1/16W

LCD

Ref. No.	Part No.	Description			Remark
R408	1-216-833-11	METAL CHIP	10K	5%	1/16W
R409	1-216-833-11	METAL CHIP	10K	5%	1/16W
R410	1-216-833-11	METAL CHIP	10K	5%	1/16W
R411	1-216-833-11	METAL CHIP	10K	5%	1/16W
R412	1-216-833-11	METAL CHIP	10K	5%	1/16W
R413	1-216-833-11	METAL CHIP	10K	5%	1/16W
R414	1-216-845-11	METAL CHIP	100K	5%	1/16W
R415	1-216-849-11	METAL CHIP	220K	5%	1/16W
R416	1-216-845-11	METAL CHIP	100K	5%	1/16W
R417	1-216-833-11	METAL CHIP	10K	5%	1/16W
R418	1-216-833-11	METAL CHIP	10K	5%	1/16W
R419	1-216-841-11	METAL CHIP	47K	5%	1/16W
R420	1-216-837-11	METAL CHIP	22K	5%	1/16W
R421	1-216-841-11	METAL CHIP	47K	5%	1/16W
R422	1-216-837-11	METAL CHIP	22K	5%	1/16W
R423	1-216-864-11	METAL CHIP	0		
R424	1-216-864-11	METAL CHIP	0		
R425	1-216-845-11	METAL CHIP	100K	5%	1/16W
R426	1-216-849-11	METAL CHIP	220K	5%	1/16W
R427	1-216-845-11	METAL CHIP	100K	5%	1/16W
R428	1-216-849-11	METAL CHIP	220K	5%	1/16W
R429	1-216-841-11	METAL CHIP	47K	5%	1/16W (US)
R429	1-216-849-11	METAL CHIP	220K	5%	1/16W (AEP)
R429	1-216-845-11	METAL CHIP	100K	5%	1/16W (CND)
R430	1-216-821-11	METAL CHIP	1K	5%	1/16W
R431	1-216-821-11	METAL CHIP	1K	5%	1/16W
R432	1-216-833-11	METAL CHIP	10K	5%	1/16W
R433	1-216-833-11	METAL CHIP	10K	5%	1/16W
R434	1-216-837-11	METAL CHIP	22K	5%	1/16W
R435	1-216-841-11	METAL CHIP	47K	5%	1/16W
R436	1-216-821-11	METAL CHIP	1K	5%	1/16W
R437	1-216-821-11	METAL CHIP	1K	5%	1/16W
R438	1-216-821-11	METAL CHIP	1K	5%	1/16W
R439	1-216-821-11	METAL CHIP	1K	5%	1/16W
R440	1-216-821-11	METAL CHIP	1K	5%	1/16W
R441	1-216-821-11	METAL CHIP	1K	5%	1/16W
R442	1-216-821-11	METAL CHIP	1K	5%	1/16W
R443	1-216-821-11	METAL CHIP	1K	5%	1/16W
R444	1-216-833-11	METAL CHIP	10K	5%	1/16W
R445	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R446	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R447	1-216-821-11	METAL CHIP	1K	5%	1/16W
R448	1-216-853-11	METAL CHIP	470K	5%	1/16W
R449	1-216-833-11	METAL CHIP	10K	5%	1/16W
R450	1-216-833-11	METAL CHIP	10K	5%	1/16W
R451	1-216-821-11	METAL CHIP	1K	5%	1/16W
R452	1-216-821-11	METAL CHIP	1K	5%	1/16W
R453	1-216-821-11	METAL CHIP	1K	5%	1/16W
R454	1-216-833-11	METAL CHIP	10K	5%	1/16W
R455	1-216-809-11	METAL CHIP	100	5%	1/16W
R457	1-216-821-11	METAL CHIP	1K	5%	1/16W
R458	1-216-821-11	METAL CHIP	1K	5%	1/16W
R459	1-216-821-11	METAL CHIP	1K	5%	1/16W
R460	1-216-817-11	METAL CHIP	470	5%	1/16W
R461	1-216-817-11	METAL CHIP	470	5%	1/16W
R462	1-216-813-11	METAL CHIP	220	5%	1/16W
R463	1-216-817-11	METAL CHIP	470	5%	1/16W
R464	1-216-813-11	METAL CHIP	220	5%	1/16W
R465	1-216-817-11	METAL CHIP	470	5%	1/16W
R466	1-216-813-11	METAL CHIP	220	5%	1/16W
R601	1-216-833-11	METAL CHIP	10K	5%	1/16W
R602	1-216-841-11	METAL CHIP	47K	5%	1/16W
R603	1-216-837-11	METAL CHIP	22K	5%	1/16W
R605	1-216-837-11	METAL CHIP	22K	5%	1/16W
R606	1-216-845-11	METAL CHIP	100K	5%	1/16W
R607	1-216-841-11	METAL CHIP	47K	5%	1/16W
R608	1-216-849-11	METAL CHIP	220K	5%	1/16W
R609	1-216-845-11	METAL CHIP	100K	5%	1/16W
R610	1-216-833-11	METAL CHIP	10K	5%	1/16W
R611	1-216-841-11	METAL CHIP	47K	5%	1/16W
R612	1-216-837-11	METAL CHIP	22K	5%	1/16W
R614	1-216-837-11	METAL CHIP	22K	5%	1/16W
R615	1-216-845-11	METAL CHIP	100K	5%	1/16W
R616	1-216-841-11	METAL CHIP	47K	5%	1/16W
R617	1-216-849-11	METAL CHIP	220K	5%	1/16W
R618	1-216-845-11	METAL CHIP	100K	5%	1/16W
R619	1-216-853-11	METAL CHIP	470K	5%	1/16W
R620	1-216-849-11	METAL CHIP	220K	5%	1/16W
R621	1-216-833-11	METAL CHIP	10K	5%	1/16W
R622	1-216-841-11	METAL CHIP	47K	5%	1/16W
R623	1-216-837-11	METAL CHIP	22K	5%	1/16W
R625	1-216-837-11	METAL CHIP	22K	5%	1/16W
R626	1-216-845-11	METAL CHIP	100K	5%	1/16W
R627	1-216-841-11	METAL CHIP	47K	5%	1/16W
R628	1-216-849-11	METAL CHIP	220K	5%	1/16W
R629	1-216-845-11	METAL CHIP	100K	5%	1/16W
R630	1-216-853-11	METAL CHIP	470K	5%	1/16W
R631	1-216-849-11	METAL CHIP	220K	5%	1/16W

< SWITCH >

S401	1-786-050-21	SWITCH, KEY BOARD (D. S. T. SUMMER T)
S402	1-786-050-21	SWITCH, KEY BOARD (CLOCK)
S403	1-418-651-11	ENCODER, ROTARY (TIMER/PUSH START/STOP)
S404	1-786-050-21	SWITCH, KEY BOARD (PLAY MODE)
S405	1-786-050-21	SWITCH, KEY BOARD (CD ▶II)
S406	1-786-050-21	SWITCH, KEY BOARD (PRESET TUNING SELECT/PRESET 2)
S407	1-786-050-21	SWITCH, KEY BOARD (PRESET TUNING SELECT/PRESET 4)
S408	1-786-050-21	SWITCH, KEY BOARD (VOLUME –)
S409	1-786-050-21	SWITCH, KEY BOARD (TUNE/TRACK I◀◀/TIME SET –)
S410	1-786-050-21	SWITCH, KEY BOARD (OPEN/CLOSE ⏏)
S411	1-786-050-21	SWITCH, KEY BOARD (■ STOP)
S412	1-786-050-21	SWITCH, KEY BOARD (PRESET TUNING SELECT/PRESET 1)
S413	1-786-050-21	SWITCH, KEY BOARD (PRESET TUNING SELECT/PRESET 3)
S414	1-786-050-21	SWITCH, KEY BOARD (PRESET TUNING SELECT/PRESET 5)
S415	1-786-050-21	SWITCH, KEY BOARD (VOLUME +)
S416	1-786-050-21	SWITCH, KEY BOARD (TUNE/TRACK ▶▶I/TIME SET +)

LCD LOADING MAIN

Ref. No.	Part No.	Description			Remark
S417	1-786-050-21	SWITCH, KEY BOARD (RADIO ON/BAND)			
		< VIBRATOR >			
X401	1-579-901-11	VIBRATOR, CERAMIC (4.19MHz)			
X402	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
*	1-671-072-11	LOADING BOARD			
		**********			
		< CAPACITOR >			
C651	1-126-947-11	ELECT	47uF	20%	10V
C653	1-127-888-21	CERAMIC	0.1uF	10%	50V
C654	1-127-888-21	CERAMIC	0.1uF	10%	50V
C656	1-127-888-21	CERAMIC	0.1uF	10%	50V
		< CONNECTOR >			
* CN651	1-785-672-11	PIN, CONNECTOR (PC BOARD) 6P			
		< IC >			
IC651	8-759-962-08	IC BA6208			
		< SWITCH >			
S651	1-771-489-11	SWITCH, LEVER SLIDE (TRAY OPEN/CLOSE DETE CT)			
**********					
*	A-3021-773-A	MAIN BOARD, COMPLETE (US)			
*	A-3021-881-A	MAIN BOARD, COMPLETE (CND)			
*	A-3323-863-A	MAIN BOARD, COMPLETE (AEP)			
		**********			
	7-685-146-14	SCREW +P 3X8 TYPE2 NON-SLIT			
		< BAND-PASS FILTER >			
BPF1	1-239-813-21	FILTER, BAND PASS (US)			
BPF1	1-236-711-21	FILTER, BAND PASS (CND, AEP)			
		< CAPACITOR >			
C1	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C2	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C4	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C5	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C6	1-162-912-11	CERAMIC CHIP	7PF	0.5PF	50V
C9	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C11	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V (US)
C12	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V (US)
C12	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V (CND, AEP)
C13	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C14	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C15	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C16	1-126-963-11	ELECT	4.7uF	20%	50V
C17	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C18	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C19	1-104-665-11	ELECT	100uF	20%	10V
C20	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V

Ref. No.	Part No.	Description			Remark
C21	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C22	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C23	1-128-551-11	ELECT	22uF	20%	25V
C24	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C25	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C26	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C27	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C28	1-126-963-11	ELECT	4.7uF	20%	50V
C29	1-126-964-11	ELECT	10uF	20%	50V
C30	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C31	1-104-665-11	ELECT	100uF	20%	10V
C32	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C33	1-162-909-11	CERAMIC CHIP	4PF	0.25PF	50V
C34	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C36	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C37	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C38	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C39	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C40	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C43	1-162-919-11	CERAMIC CHIP	22PF	5%	50V (US)
C51	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C52	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C53	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C54	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C55	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C56	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C57	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C58	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C59	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C60	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C61	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C62	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C63	1-128-551-11	ELECT	22uF	20%	25V
C64	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C65	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C66	1-126-947-11	ELECT	47uF	20%	35V
C67	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C68	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C69	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C70	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C71	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (US)
C101	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C102	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C103	1-126-964-11	ELECT	10uF	20%	50V
C111	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C112	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C113	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C114	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C115	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C116	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C117	1-126-963-11	ELECT	4.7uF	20%	50V
C131	1-126-963-11	ELECT	4.7uF	20%	50V
C151	1-135-834-91	CERAMIC CHIP	2.2uF		6.3V
C171	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C172	1-126-963-11	ELECT	4.7uF	20%	50V
C173	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C174	1-126-947-11	ELECT	47uF	20%	10V
C175	1-104-665-11	ELECT	100uF	20%	10V
C176	1-126-916-11	ELECT	1000uF	20%	6.3V
C178	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C201	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C202	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C203	1-126-964-11	ELECT	10uF	20%	50V
C211	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C212	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C213	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C214	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C215	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C216	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C217	1-126-963-11	ELECT	4.7uF	20%	50V
C231	1-126-963-11	ELECT	4.7uF	20%	50V
C251	1-135-834-11	CERAMIC CHIP	2.2uF		6.3V
C271	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C272	1-126-963-11	ELECT	4.7uF	20%	50V
C273	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C274	1-126-947-11	ELECT	47uF	20%	10V
C275	1-104-665-11	ELECT	100uF	20%	10V
C276	1-126-916-11	ELECT	1000uF	20%	6.3V
C278	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C301	1-126-947-11	ELECT	47uF	20%	10V
C302	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C311	1-126-963-11	ELECT	4.7uF	20%	50V
C312	1-126-947-11	ELECT	47uF	20%	10V
C331	1-126-934-11	ELECT	220uF	20%	10V
C334	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C352	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C371	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C372	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C373	1-126-947-11	ELECT	47uF	20%	10V
C376	1-126-964-11	ELECT	10uF	20%	50V
C377	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C378	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C379	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C911	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C912	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C913	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C914	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C915	1-126-964-11	ELECT	10uF	20%	50V
C916	1-126-964-11	ELECT	10uF	20%	50V (US)
C917	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C918	1-126-967-11	ELECT	47uF	20%	50V (US)
C918	1-126-947-11	ELECT	47uF	20%	35V (CND, AEP)
C919	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C920	1-126-937-11	ELECT	4700uF	20%	16V
C921	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C922	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (US)
C951	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C952	1-126-934-11	ELECT	220uF	20%	10V
C953	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C954	1-126-935-11	ELECT	470uF	20%	10V
C955	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C956	1-126-934-11	ELECT	220uF	20%	10V
C957	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C958	1-104-665-11	ELECT	100uF	20%	10V
C959	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C960	1-126-934-11	ELECT	220uF	20%	10V
C961	1-126-935-11	ELECT	470uF	20%	10V
C971	1-126-935-11	ELECT	470uF	20%	10V
		< CONNECTOR >			
* CN1	1-568-276-11	SOCKET, CONNECTOR 10P			
CN301	1-573-209-11	SOCKET, CONNECTOR 15P			
* CN371	1-785-656-11	PIN, CONNECTOR (PC BOARD) 4P			
* CN911	1-785-654-11	PIN, CONNECTOR (PC BOARD) 2P			
		< TRIMMER >			
CT1	1-141-601-11	CAP, ADJ			
CT2	1-141-601-11	CAP, ADJ			
CT3	1-141-601-11	CAP, ADJ (US)			
		< DIODE >			
D2	6-500-169-01	DIODE KV1610STL1-2			
D3	8-719-083-90	DIODE HVU363ATRU (US)			
D3	8-719-084-67	DIODE HVU202ATRU (CND, AEP)			
D4	8-719-083-90	DIODE HVU363ATRU (US)			
D5	8-719-083-90	DIODE HVU363ATRU (US)			
D5	8-719-084-67	DIODE HVU202ATRU (CND, AEP)			
D51	8-719-924-13	DIODE MTZJ-T-77-22B (US)			
D301	8-719-911-19	DIODE 1SS119-25TD			
D302	8-719-911-19	DIODE 1SS119-25TD			
D331	8-719-069-55	DIODE UDZSTE-175.6B			
D332	8-719-069-55	DIODE UDZSTE-175.6B			
D371	8-719-911-19	DIODE 1SS119-25TD			
D911	8-719-031-85	DIODE 1N4002L (AEP)			
D911	8-719-063-79	DIODE 1N4002B (US, CND)			
D912	8-719-031-85	DIODE 1N4002L (AEP)			
D912	8-719-063-79	DIODE 1N4002B (US, CND)			
D913	8-719-031-85	DIODE 1N4002L (AEP)			
D913	8-719-063-79	DIODE 1N4002B (US, CND)			
D914	8-719-031-85	DIODE 1N4002L (AEP)			
D914	8-719-063-79	DIODE 1N4002B (US, CND)			
D915	8-719-911-19	DIODE 1SS119-25TD			
D916	8-719-911-19	DIODE 1SS119-25TD			
D917	8-719-911-19	DIODE 1SS119-25TD			
D918	8-719-911-19	DIODE 1SS119-25TD			
D919	8-719-911-19	DIODE 1SS119-25TD (US)			
D951	8-719-109-89	DIODE MTZJ-T-77-5.6B			
D952	8-719-109-97	DIODE MTZJ-T-77-6.8B			
D953	8-719-983-15	DIODE MTZJ-T-77-3.9A			
D971	8-719-911-19	DIODE 1SS119-25TD			
		< IC >			
IC1	8-752-073-35	IC CXA1960Q			
IC51	6-701-908-01	IC LC72122V-TLM			
IC301	8-759-909-71	IC BA4558F-E2			
IC331	8-759-539-45	IC M62429P			
IC371	8-759-426-51	IC BA5417			

MAIN

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
JC5	1-216-864-11	METAL CHIP	0		
JC6	1-216-864-11	METAL CHIP	0		
JC7	1-216-864-11	METAL CHIP	0		
JC8	1-216-864-11	METAL CHIP	0		
JC9	1-216-864-11	METAL CHIP	0		
JC10	1-216-864-11	METAL CHIP	0		
JC11	1-216-864-11	METAL CHIP	0		
JC15	1-216-864-11	METAL CHIP	0		
		< COIL >			
L1	1-428-969-11	COIL, FERRITE-ROD ANTENNA (MW)			
L2	1-419-540-21	COIL, OSCILLATION (AM)			
L3	1-419-847-11	COIL, AIR-CORE (US)			
L3	1-428-999-11	COIL, AIR-CORE (CND, AEP)			
L4	1-419-854-11	COIL, AIR-CORE (US)			
L5	1-414-685-11	INDUCTOR 33nH (US)			
L5	1-414-683-11	INDUCTOR 22nH (CND, AEP)			
L911	1-402-964-11	COIL, AIR-CORE			
L912	1-402-964-11	COIL, AIR-CORE			
		< TRANSISTOR >			
Q1	8-729-423-52	TRANSISTOR 2SC3931-C-TX			
Q2	8-729-028-91	TRANSISTOR DTA144EUA-T106 (US)			
Q51	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q52	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q101	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q102	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q111	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q112	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q151	8-729-922-87	TRANSISTOR 2SD1757K-T146-RS			
Q201	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q202	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q211	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q212	8-729-905-35	TRANSISTOR 2SC4081T106R			
Q251	8-729-922-87	TRANSISTOR 2SD1757K-T146-RS			
Q301	8-729-026-52	TRANSISTOR 2SA1576A-T106-R			
Q302	8-729-801-84	TRANSISTOR 2SB1013-TP-34			
Q351	8-729-028-91	TRANSISTOR DTA144EUA-T106			
Q371	8-729-028-91	TRANSISTOR DTA144EUA-T106			
Q372	8-729-028-99	TRANSISTOR DTC114YUA-T106			
Q951	8-729-021-82	TRANSISTOR 2SD2396K			
Q952	8-729-021-82	TRANSISTOR 2SD2396K			
Q953	8-729-212-02	TRANSISTOR KTC3203Y-AT			
		< RESISTOR >			
R1	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R2	1-216-857-11	METAL CHIP	1M	5%	1/16W
R3	1-216-845-11	METAL CHIP	100K	5%	1/16W
R4	1-216-845-11	METAL CHIP	100K	5%	1/16W
R5	1-216-845-11	METAL CHIP	100K	5%	1/16W (US)
R6	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R7	1-216-845-11	METAL CHIP	100K	5%	1/16W
R8	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R9	1-216-821-11	METAL CHIP	1K	5%	1/16W
R10	1-216-817-11	METAL CHIP	470	5%	1/16W
R11	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R12	1-216-821-11	METAL CHIP	1K	5%	1/16W
R13	1-216-817-11	METAL CHIP	470	5%	1/16W
R14	1-216-833-11	METAL CHIP	10K	5%	1/16W
R15	1-216-801-11	METAL CHIP	22	5%	1/16W
R17	1-216-837-11	METAL CHIP	22K	5%	1/16W
R18	1-216-813-11	METAL CHIP	220	5%	1/16W
R19	1-216-821-11	METAL CHIP	1K	5%	1/16W
R51	1-216-821-11	METAL CHIP	1K	5%	1/16W
R52	1-216-821-11	METAL CHIP	1K	5%	1/16W
R53	1-216-821-11	METAL CHIP	1K	5%	1/16W
R54	1-216-809-11	METAL CHIP	100	5%	1/16W
R55	1-216-833-11	METAL CHIP	10K	5%	1/16W
R56	1-216-833-11	METAL CHIP	10K	5%	1/16W
R57	1-216-864-11	METAL CHIP	0		
R58	1-216-845-11	METAL CHIP	100K	5%	1/16W
R59	1-216-833-11	METAL CHIP	10K	5%	1/16W
R60	1-216-805-11	METAL CHIP	47	5%	1/16W (US)
R101	1-216-841-11	METAL CHIP	47K	5%	1/16W
R102	1-216-837-11	METAL CHIP	22K	5%	1/16W
R103	1-216-833-11	METAL CHIP	10K	5%	1/16W
R104	1-216-833-11	METAL CHIP	10K	5%	1/16W
R105	1-216-821-11	METAL CHIP	1K	5%	1/16W
R111	1-216-864-11	METAL CHIP	0		
R112	1-216-837-11	METAL CHIP	22K	5%	1/16W
R113	1-216-833-11	METAL CHIP	10K	5%	1/16W
R114	1-216-821-11	METAL CHIP	1K	5%	1/16W
R115	1-216-841-11	METAL CHIP	47K	5%	1/16W
R117	1-216-821-11	METAL CHIP	1K	5%	1/16W
R118	1-216-821-11	METAL CHIP	1K	5%	1/16W
R119	1-216-817-11	METAL CHIP	470	5%	1/16W
R120	1-216-853-11	METAL CHIP	470K	5%	1/16W
R121	1-216-849-11	METAL CHIP	220K	5%	1/16W
R122	1-216-833-11	METAL CHIP	10K	5%	1/16W
R131	1-216-821-11	METAL CHIP	1K	5%	1/16W
R132	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R151	1-216-833-11	METAL CHIP	10K	5%	1/16W
R171	1-216-821-11	METAL CHIP	1K	5%	1/16W
R172	1-216-833-11	METAL CHIP	10K	5%	1/16W
R173	1-216-849-11	METAL CHIP	220K	5%	1/16W
R175	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R176	1-216-813-11	METAL CHIP	220	5%	1/16W
R177	1-216-817-11	METAL CHIP	470	5%	1/16W
R178	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R179	1-216-853-11	METAL CHIP	470K	5%	1/16W
R180	1-216-849-11	METAL CHIP	220K	5%	1/16W
R201	1-216-841-11	METAL CHIP	47K	5%	1/16W
R202	1-216-837-11	METAL CHIP	22K	5%	1/16W
R203	1-216-833-11	METAL CHIP	10K	5%	1/16W
R204	1-216-833-11	METAL CHIP	10K	5%	1/16W
R205	1-216-821-11	METAL CHIP	1K	5%	1/16W
R211	1-216-864-11	METAL CHIP	0		
R212	1-216-837-11	METAL CHIP	22K	5%	1/16W
R213	1-216-833-11	METAL CHIP	10K	5%	1/16W
R214	1-216-821-11	METAL CHIP	1K	5%	1/16W
R215	1-216-841-11	METAL CHIP	47K	5%	1/16W
R217	1-216-821-11	METAL CHIP	1K	5%	1/16W

MAIN **RAY CATCHER** **RELAY** **SWITCH**

Ref. No.	Part No.	Description			Remark
R218	1-216-821-11	METAL CHIP	1K	5%	1/16W
R219	1-216-817-11	METAL CHIP	470	5%	1/16W
R220	1-216-853-11	METAL CHIP	470K	5%	1/16W
R221	1-216-849-11	METAL CHIP	220K	5%	1/16W
R222	1-216-833-11	METAL CHIP	10K	5%	1/16W
R231	1-216-821-11	METAL CHIP	1K	5%	1/16W
R232	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R251	1-216-833-11	METAL CHIP	10K	5%	1/16W
R271	1-216-821-11	METAL CHIP	1K	5%	1/16W
R272	1-216-833-11	METAL CHIP	10K	5%	1/16W
R273	1-216-849-11	METAL CHIP	220K	5%	1/16W
R275	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R276	1-216-813-11	METAL CHIP	220	5%	1/16W
R277	1-216-817-11	METAL CHIP	470	5%	1/16W
R278	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R279	1-216-853-11	METAL CHIP	470K	5%	1/16W
R280	1-216-849-11	METAL CHIP	220K	5%	1/16W
R301	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R302	1-216-837-11	METAL CHIP	22K	5%	1/16W
R303	1-216-817-11	METAL CHIP	470	5%	1/16W
R304	1-216-841-11	METAL CHIP	47K	5%	1/16W
R305	1-216-821-11	METAL CHIP	1K	5%	1/16W
R311	1-216-845-11	METAL CHIP	100K	5%	1/16W
R312	1-216-845-11	METAL CHIP	100K	5%	1/16W
R313	1-216-833-11	METAL CHIP	10K	5%	1/16W
R314	1-216-833-11	METAL CHIP	10K	5%	1/16W
R331	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R332	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R333	1-216-805-11	METAL CHIP	47	5%	1/16W
R351	1-216-864-11	METAL CHIP	0		
R352	1-216-845-11	METAL CHIP	100K	5%	1/16W
R371	1-216-809-11	METAL CHIP	100	5%	1/16W
R372	1-216-864-11	METAL CHIP	0		
R373	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R374	1-216-845-11	METAL CHIP	100K	5%	1/16W
R375	1-216-857-11	METAL CHIP	1M	5%	1/16W
R911	1-216-809-11	METAL CHIP	100	5%	1/16W
R912	1-216-849-11	METAL CHIP	220K	5%	1/16W
R913	1-216-845-11	METAL CHIP	100K	5%	1/16W
⚠R951	1-219-149-11	FUSIBLE	1	5%	1/4W F
R953	1-249-413-11	CARBON	470	5%	1/4W
⚠R954	1-219-149-11	FUSIBLE	1	5%	1/4W F
R956	1-249-413-11	CARBON	470	5%	1/4W
R957	1-216-809-11	METAL CHIP	100	5%	1/16W
R958	1-216-809-11	METAL CHIP	100	5%	1/16W
		< VARIABLE RESISTOR >			
RV1	1-241-767-21	RES, ADJ, CARBON 100K			
RV2	1-238-599-11	RES, ADJ, CARBON 4.7K			
		< VIBRATOR >			
X51	1-567-769-11	VIBRATOR, CRYSTAL (75kHz)			

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Ref. No.	Part No.	Description			Remark
*	1-684-056-11	RAY CATCHER BOARD			
		**********			
		< IC >			
IC403	6-600-480-01	IC SPS-440-VP			

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*	A-3178-334-A	RELAY BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C671	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C672	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C673	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C674	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C676	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C677	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C678	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
CN671	1-580-182-11	SOCKET, CONNECTOR 3P			
CN672	1-774-112-11	SOCKET, CONNECTOR 15P			
* CN673	1-784-736-11	CONNECTOR, FFC 14P			
		< DIODE >			
D671	8-719-063-79	DIODE 1N4002B			
		< RESISTOR >			
JC671	1-216-864-11	METAL CHIP	0		
		< TRANSISTOR >			
Q671	8-729-028-99	TRANSISTOR DTC114YUA-T106			
		< RESISTOR >			
R671	1-216-845-11	METAL CHIP	100K	5%	1/16W
R672	1-216-845-11	METAL CHIP	100K	5%	1/16W
R673	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R674	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R675	1-216-845-11	METAL CHIP	100K	5%	1/16W
R676	1-216-845-11	METAL CHIP	100K	5%	1/16W
R677	1-216-841-11	METAL CHIP	47K	5%	1/16W
R678	1-216-829-11	METAL CHIP	4.7K	5%	1/16W

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*	1-684-054-11	SWITCH BOARD			
		**********			
		< CAPACITOR >			
C691	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< RESISTOR >			
R691	1-216-833-11	METAL CHIP	10K	5%	1/16W
		< SWITCH >			
S691	1-554-061-00	SWITCH, SLIDE (MEGA BASS)			

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The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

TRANSFORMER

Ref. No.	Part No.	Description	Remark
*	1-684-052-11	TRANSFORMER BOARD	
		**********	
	1-533-233-31	HOLDER, FUSE (CND)	
⚠	1-777-921-23	CORD, POWER (AEP)	
⚠	1-783-817-51	CORD, POWER (US, CND)	
		< FUSE >	
⚠F901	1-576-107-12	FUSE (3.15A/250V) (CND)	
		< CABLE HOLDER >	
* KH901	1-573-287-11	HOLDER, CABLE 2P	
		< TRANSFORMER >	
⚠T901	1-435-921-11	TRANSFORMER, POWER (AEP)	
⚠T901	1-435-974-11	TRANSFORMER, POWER (US)	
⚠T901	1-437-351-11	TRANSFORMER, POWER (CND)	
		< TERMINAL >	
TM901	1-535-771-31	TERMINAL (AEP)	
TM902	1-535-771-31	TERMINAL (AEP)	
**********			
		MISCELLANEOUS	
		**********	
10	1-823-760-11	CABLE, FLEXIBLE FLAT (14 CORE)	
⚠108	1-777-921-23	CORD, POWER (AEP)	
⚠108	1-783-817-51	CORD, POWER (US, CND)	
151	1-757-689-11	CABLE, FLEXIBLE FLAT (16 CORE)	
503	1-452-899-21	MAGNET	
601	X-2162-708-1	CHASSIS ASSY (RCP) (RP), MOTOR (SPINDLE) (including M701)	
⚠605	8-820-161-02	OPTICAL PICK- UP (KSS-213R/C2RP)	
⚠F901	1-576-107-12	FUSE (3.15A/250V) (CND)	
M651	A-3320-538-A	MOTOR ASSY, LOADING	
M702	X-2162-712-1	GEAR ASSY (R) (RP), MOTOR (SLED)	
SP101	1-529-478-11	SPEAKER (7.7cm)	
SP201	1-529-478-11	SPEAKER (7.7cm)	
⚠T901	1-435-921-11	TRANSFORMER, POWER (AEP)	
⚠T901	1-435-974-11	TRANSFORMER, POWER (US)	
⚠T901	1-437-351-11	TRANSFORMER, POWER (CND)	
**********			
		ACCESSORIES	
		**********	
	3-009-707-01	SPACER	
	3-011-879-01	SCREW (M5X80), +B	
	3-238-070-21	BATTERY COVER (FOR RM-CD543A)	
	3-238-576-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, DUTCH) (CND, AEP)	
	3-238-576-21	MANUAL, INSTRUCTION (ENGLISH) (US)	
	3-238-576-31	MANUAL, INSTRUCTION (SWEDISH, DANISH, FINNISH) (AEP)	
*	3-897-241-01	CLAMP, CORD	
	A-3013-992-A	REMOTE CONTROL UNIT (RM-CD543A)	

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MEMO

REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2002.03	New
1.1	2002.07	Correction of OPTICAL BLOCK (SPM-02027)
1.2	2005.07	Change of Part for Ref. No. IC403 on RAY CATCHER board (SPM-05066)